Bible Flowers

BIBLE FLOWERS AND FLOWER LORE.

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London:
HODDER AND STOUGHTON,
27, PATERNOSTER ROW.

MDCCCLXXXV.

Printed by Hazell, Watson, & Viney, Limited, London and Aylesbury.

PREFACE.

THE series of papers, of which this little volume is composed, appeared originally in the *Jewish World*. In compliance with a general wish on the part of those who read them, and especially of the Dowager Lady Hatherton, who thought the book would be valuable to Bible students, they are now reprinted. They have been thoroughly revised, in parts re-written, and considerably added to. The articles make no pretence to either deep learning or marked originality, and are simple designed for popular reading. The object of the author has been to give a fairly accurate and reliable account, so far as the present state of our knowledge admits, of the principal flowers and flowering-plants to which

allusion is made in the Old Testament Scriptures. All the usual sources of information have been laid under contribution; and such scraps of Eastern floral lore as could be gathered have been freely introduced to enliven the whole. Perhaps the only thing the writer can say in commendation of the little work is, that he has endeavoured, when preparing the articles, to avoid that heaviness of description which is the besetting sin of more learned compilations.

LONDON, *June*, 1885.

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I.

INTRODUCTORY.

IN Biblical archæology—as in most other branches of learning—there are certain broad tracks of enquiry from which students rarely deviate; and into these beaten paths people are apt to crowd somewhat unreasonably. Of course, one would not question the wisdom of following where scholars lead along the highways and high-roads of Bible investigation. But here and there, away from the main track, are many bye-paths one is tempted to follow—side-tracks leading into strange corners and revealing unexpected beauties. Unnoted of the majority, they are often ignored by the learned, though they would well repay the trouble and time involved in exploring them. Frequently they lead to discoveries valuable in themselves, and interesting by reason of the additional light they throw upon the writings long held in reverence by Christian and Jew. And one of the pleasantest of these little bye-paths of Bible study is that which leads to the investigation of the Flora of the Bible, Bible flowers and flower

fancies, the floral conceits, together with the lore which, like the moss that encrusts the stone, has in process of centuries gathered round them, and but enhances their beauty.

Those unacquainted with the subject will be astonished at the wealth of floral imagery contained in the Bible. The number of plants, flowers, and shrubs mentioned therein is surprising. And not one twentieth part is known to the average reader of the Scriptures. The Holy Land is one of those favoured countries which, like the greater Empire of the far East, might justifiably have arrogated to itself the title of "The Flowery Land." The indigenous Flora is rich beyond belief, even in our own days when everything is sadly degenerated. Wild roses, free-growing lilies, sweet-smelling stocks, fine-odoured mignonette, many-coloured crocuses, gorgeous anemones, are among the common flowers of the country. The bridal favourite myrtle, many species of gladiolus, pungent narcissus, and yellow and white water-lilies have here their native habitat. They grow wild, and positively luxuriate in their freedom. Even the wilderness, given over now, as in former times, to herds and flocks, is carpeted with gay-coloured gems during the moister days of early spring. And, in ancient times, many of these floral favourites were as carefully cultivated and sedulously tended as the most ardent admirer could desire.

Naturally the Jewish poet and the Hebrew seer

made these "gems of Heaven's own setting" subservient to his teaching. His finest images, his fairest allusions, his most telling illustrations, were culled from the fields. More intensely than the modern singer did the ancient Jewish writer draw inspiration from the transient flower and ephemeral blossom. Apart from this, the passion for flowers is eminently eastern. To this day the Persian will sit before his favourite flower in mute adoration, taking a kind of sensuous pleasure in its beauty. And it is no detraction from this worship that he is probably sipping tea and talking scandal while his eye revels in its dainty colour and graceful form. There is ample evidence to show that the love of flowers was a passion with the ancient Hebrews. The extent to which floral language is employed, and the frequency with which floral similes are used in the Scriptures, would alone be suggestive, but for the perfunctory manner in which so many are in the habit of reading the narratives of Scripture.

But the Flowers of the Bible deserve elucidation for much more important reasons. In the first place, the beauty of the floral allusions abounding in the Scriptures is wholly missed, owing to misconceptions and mistranslations. The worthy translators of the wise King James's days, however anxious they may have been for truth, were by no means solicitous about beauty. The veriest dry

stick of polemical divinity was to them of infinitely greater importance than the Flora and Fauna of all Palestine. To them, except where it affected some point of orthodoxy, the Rose of Sharon might have been the Thorn of the Wilderness. And in this way those who read only the authorised version of the Scriptures are altogether at sea as to the flora of the Hebrews. It will probably surprise many readers of the Sacred Volume to learn that the Rose of the Scriptures, the Rose of Sharon, is not a rose at all—is nothing like a rose, and bears no resemblance whatever to our queen of flowers. The Lily of the Field, the Lily of the Song of Songs, is certainly not the virgin flower to which *we* give the name, just as the Apple is not an apple, and the Oak of the Jews something very different from the British tree that bears the name. The inaccurate rendering of so many of the Bible Flowers in the Anglican version of the Scriptures mars the beauty and significance of most of the floral allusions of the Hebrew poets and prophets. In the following pages we shall endeavour to remedy some of these inaccuracies of our Bibles, and correct some of the erroneous notions current as to the flowers and flowering plants known to the ancient Hebrews and referred to in the Jewish Scriptures.

II.

THE ROSE OF SHARON.

OF all Bible flowers the most familiar, the most often referred to, and, generally speaking, the first to occur to the mind of the general reader, is undoubtedly the Rose, the Rose of Sharon. It is also the flower of which we know least. For, of the scores of plants mentioned in the Scriptures there is, in all probability, not a single one of which the identity is more doubtful. The Hebrew word which is translated Rose is "chabatzeleth." It is found only twice in the Sacred Writings, in the Song of Solomon (ii. 1), "I am the Rose of Sharon," and in Isaiah (xxxv. 1), "The desert shall rejoice and blossom as the Rose." Philologists can give us no clue to the real signification of the word. Professor Delitzsch has found "chavatzilatu" in the Assyrian; but he could only guess at its meaning, pretty much as the learned Gesenius did, when he says it is a reed plant of some kind or other. All we can for certain assert is that it was a bulbous-rooted, wild-growing, and highly-scented flower. We must not be led away by the Talmudic "varad," which is only a Chaldee rendering of the Hebrew. Naturalists and commentators have alike tried, in vain most of them, to identify the pseudo-Rose of Sharon. Dr. Thomson suggests

the commonplace, not to say vulgar, mallow. Robinson proposes the little *parvenu* known as the meadow-saffron or meadow-crocus. But neither can claim, with anything like good grounds, the poetic honours that attach to Solomon's flower.

The only claimant whose pretensions will, for a moment, bear examination—and the only claimant whose pretensions we can favour—is the sweet-scented Narcissus, a lovely flowering-plant, more odorous than even that charming English favourite, the Lily of the Valley, and gorgeous of hue as only the field gems of the East are. No flower is more fragrant than this; none of which, to this day, the natives of Palestine are more passionately fond. While in bloom men and women carry two or three blossoms about with them, whether in the house, or in the street, or making purchases in the bazaar; and it is moreover indigenous to the Holy Land. In the opinion of Canon Tristram—and there is no higher authority on everything connected with the flora of the Land of Promise—the Narcissus, the "Narcissus tazetta" to be scientifically correct, is the Rose of Sharon. And in this opinion we certainly concur.

The Narcissus is one of a family well known to English readers, including such general favourites as the Daffodil—a pseudo-Narcissus—the White or Poet's Narcissus, and the Jonquil. The White or Poet's Narcissus is that most esteemed in the West.

Eastern people prefer the Jonquils, with their varied colour and their powerful scent. The flower, with its pretty petals and elegant corona, is too well known to need description. It is said, in the East, to have been originally only white, but when the Syrian god Adonis was slain, his blood, falling upon the petals, tinted it. It was formerly held to be one of the flowers upon the blossom of which the worshippers of the youthful deity —the Tammuz of the prophet Ezekiel—said they could perceive the letters "Ai, Ai," of the lament with which, as we know from the Bible, the women were wont to bemoan his untimely death. It was sacred also to the Greek Furies, who stupefied their victims with its odour before destroying them.

The Rose of the Bible was certainly not our queen of the flower garden. A native of Persia, the Rose could not have been unknown to the ancient Hebrews, for the heathens of Syria in their revels and worship, or combination of both, introduced the Rose into their ritual. The Galileans were of old noted rose-growers and rose-lovers. Egypt, in particular, was famous for this magnificent flower, and King Solomon, who married Pharaoh's daughter, must, at the least, have heard of it. Be that as it may, the Jews evidently brought back after the exile a knowledge of Rose-culture, for we find, during the period of the Asmoneans, undoubted references to this flower.

There is, however, nothing to show that the Rose was known to the early Hebrews; and as the earliest

Chaldean paraphrase of the Bible extant translates the Hebrew word "chabatzeleth" by "Narkom," the Narcissus, we may safely accept the identification, considering the peculiar appropriateness of this charming flower in the passages of the Bible to which allusion has been made. The Rose referred to in the Apocrypha is distinct from both the Narcissus and the common Rose. In the passage where Wisdom (Ecclus. xxiv. 14) says, "I was exalted like a palm-tree of Engeddi, and as a Rose-plant in Jericho," it is evident that a tall-flowering shrub is meant; the locality, type, and the Greek rendering, help us to determine the plant intended. It is the Oleander, the Rhododendron of the Greeks, or tree-rose, "one of the most beautiful plants," Canon Tristram says, "of Palestine, abounding in the warmer parts of the country and flourishing near streams, or by the sides of wells, and showing a mass of bloom in the spring," as the same book (chaps. i. and viii.) says, "like the flower of roses in the spring of the year." The popularly-called "Rose of Jericho" has nothing to do with the Flora of the Bible.

A legend, common enough in the East, has it that the White Narcissus was changed into the first Red Rose by the dying Adonis. In this way the flowers are connected. It is to a Jewish maiden, we may remind our readers, that the world is said, in another account, to owe the first red rose seen since man was driven from Paradise. In the quaintly written version

of Sir John Mandeville's "Voiage and Traivaile," the reader will find the story; how between the city and church of Bethlehem is the field known as floridas—which means, flourished—for the following reason: A fair Jewish maiden, named Zillah, was falsely accused of adultery and condemned, as was wont of old, to be burnt to death. She was led to the stake, and as the fire began to rise about her, she prayed Heaven, as she had not sinned, to make known her innocence in the sight of those gathered to witness her shameful end. When suddenly, as she spoke, the fire ceased, the brands that were burning became branches of a living tree, upon which blossomed, in all their beauty, the first white and red roses ever seen by mortal eye since Adam was expelled from Paradise.

The legend has been done into verse—as will doubtless be remembered—by the poet Southey; and, curiously enough, a variant of the same legend, current among the Syrians, accounts in a somewhat similar way for the origin of the first red-tinted Narcissus.

III.

"THE LILY OF THE VALLEYS."

THE Lily of the Scriptures is the Hebrew "Shushan," or "Shoshannah," from which is derived the name Susanna. It has always been looked upon as pre-eminently a Jewish flower, and accounted the floral badge of Israel, her type and cognisance. The phrase "Shoshannat Ja'akob," the "Lily of Jacob," is as old as the name Jew. But what particular Lily is meant in the Bible, it is not at a first reading by any means easy to determine. The Lily is more inclined to vary than any known species of flowering plant in cultivation; and this adds to our difficulty. The Song of Solomon has several references to the flower, but the references are calculated to confound the confusion created by the unscientific and vague manner in which flowers have always been designated in the East. The confusion is perpetuated to this day. At least a score of flowering plants are known among the Arabs as "Susan"; in fact, the peasants apply the name to any brilliantly coloured flower at all resembling a lily in growth, as the tulip, the anemone, and the ranunculus. As a figure of humility, the Lily is used in the Song of Solomon (chap. ii. 1), "I am the Rose of Sharon and the

Lily of the Valleys." Certainly not so in the comparison instituted immediately afterwards, "As the lily among the thorns, so is my love among the daughters." The latter verse, and "Two young roes twins that feed among the lilies" (chap. iv. 5), point to a wild growing flower: verse 13 of chap. v., "My beloved is gone down into his garden to gather lilies," would appear to indicate a cultivated variety. The reference to colour—upon which many commentators lay great stress, "His lips like lilies dropping sweet-smelling myrrh" (chap. v. 13)—is not important, since the allusion may be quite as well to the fragrance as to the hue of the flower.

The difficulty of settling the identity of the Lily of the Bible is enhanced, too, by the guess-work of many ancient critics. The Targum or Chaldee paraphrase of the Scriptures gives us the Aramean "Varod" as an equivalent. Maimonides says it is the violet. The critical Kimchi and the whole of the Judeo-Spanish school follow the Targum, and identify the Lily of the Bible with the Rose of our gardens. Needless to say this is grossly incorrect; and the error is the more inexcusable, as the Spanish "Azucena," "white lily," is only a variation of the original Arabic word, "Susan," identical, of course, with the Hebrew "Shoshannah."

Fortunately there are many facts that, combined, enable us to determine accurately enough what is the flower referred to in the Scriptures as the "Lily

of the Valleys." Persian, Syrian, and Coptic have all preserved the name of the virgin among flowers. Shushan, the capital of Persia, was so called from the abundance of a variety of the Lily that grew in the province in which it was situated. That sweet-scented Lilies abounded in Palestine in ancient times is evident from Dioscorides. He explicitly states that the best perfume was made of "the Lilies of Syria and Pisidia." The Septuagint uniformly renders the Hebrew word "Shushannah" by the Greek "Krinon"; while a celebrated passage of Athenæus actually identifies "Shushan" with both "Krinon," the red and purple Lily, and with "Leirion," the white Lily. And, so far, philology settles the matter conclusively for us.

In order, however, to suit the text, the Lily for which we are seeking must fit in with certain requirements. It must be, in the first instance, a plant growing wild in the fields, and yet be capable of cultivation in gardens. It must have a fairly thick stem, green and succulent so as to furnish food for deer or cattle, and when dried be fit for burning in the "tanoor," or oven. Its colour should be anything but white; for our knowledge of the flora of Palestine and several other circumstances preclude the possibility of the "Shushannah" of the ancient Hebrews being the favourite White Lily, the "lilium candidum," to which, in the opinion of most readers of the Bible, the references in the Sacred Writings

apply. In fact, if one thing is certain it is that Solomon's "Lily of the Valleys," is not the sweet-smelling favourite of our western flower-gardens.

Canon Tristram proposes the "Anemone coronaria," the Wind-rose, as the Germans call it; and he has a good deal to say in favour of this claimant to floral honours. It may be the "lily of the field" referred to in the New Testament. But it certainly does not come up to the requirements—more rigorous, perhaps, in their way—of the old dispensation. The plant really meant—dismissing at once a host of pretenders of the unallied tulip family and their still more remote cater-cousins the ranunculi—is, we venture to think, the Chalcedonian or Martagon Lily, "lilium Chalcedoniam," known also as the Chalcedonian Iris, and sometimes called the Sword-lily. It is referred to as an exceptionally fine and presumably cultivated variety, in the Talmud, Tractate Oholoth. The Mischnah, Kilaim (v. 8) refers to a smaller variety of the Iridaceæ, suggestively enough, along with the Rose; and the "Shoshannah Hammelech," of the same passage, or "King's Lily," is no doubt the magnificent "Lilium Candidum" with which the Jews in later days became acquainted in Persia during the period of the exile, precisely as in the case of the Rose.

This Chalcedonian Lily is the Shoshannah of the Bible. It fulfils all the conditions required by the Scriptural text. It is fairly tall, succulent-stemmed, and rapid growing—as the reference in the Book of

Hosea would require—and is still found in out-of-the-way places in the Holy Land. Dr. Thomson ("The Land and the Book") describes the plant, which is abundant in the spring months, and possesses all the best characteristics of the Lily family.

In the pharmacopœia of Eastern medicine-mongers, the Lily played, of old, a most important part. It was the basis, when compounded with certain essences, of some powerful love philtres. For this purpose, though, the flower had to be gathered in darkness and silence by a virgin on the night before the new moon. Beaten up with sugar and spirit the leaves made a tasty conserve, of which the ladies in the East were particularly fond. The Lily was always regarded as a highly symbolic plant, and naturally many legends cluster around it. It is connected with the fall and the expulsion of man from Eden. It is to woman that mankind is said to be indebted for the Lily. A very pretty Eastern apologue has it that, as Eve went forth from Paradise, contrite and repentant, she wept, and wherever the remorseful drops fell, a Lily sprung up from the ground. But the most beautiful of the Oriental legends connected with this most graceful of flowers is that which tells us that the weapon of Samael, the Angel of Death, is only a sword from which a gall drop runs when seen from below; but when looked upon from above it is a Lily, from which exudes a dewdrop from the Tree of Life.

IV.

THE SAFFRON CROCUS.

THE Crocus—to be strictly correct, the Saffron Crocus—stands in the very front rank of Bible Flowers. It is classed, in the Song of Songs, among the prime favourites of the garden; and deservedly so. For, in Eastern and in Western lands, the Crocus is the most popular of spring flowers. Its hardy habit, graceful growth, and varied hues would alone go far to make it a general favourite. But, among Oriental peoples, the esteem in which the plant is held is not a little enhanced by the fact that it yields the much-admired condiment known as saffron. The Crocus is only once referred to in the whole of the sacred Scriptures—in the Song of Solomon iv. 14. Its Hebrew name is "Karkom"; translated, not altogether incorrectly, in the Anglican Version "saffron." The passage in which it occurs is one of the most poetic in the allegorical amatory poem attributed to the wise Jewish King.

> "A garden locked up is my sister, my spouse,
> Thy plants are the shoots of Paradise,
> Pomegranates with delicious fruits,
> The fragrant Henna with the Nards,
> The Nard and Crocus,
> The sweet-scented Reed and Cinnamon,
> With every tree of incense."

The connection in which the Crocus is here mentioned, along with Spikenard, Calamus, the Myrrh-rose and Aloes, shows that it must have been an aromatic plant cultivated on account of its pungent and pleasing odour. It may, of course, be said that the scent of the Crocus, like the smell of saffron, is not very perceptible. But then it must not be forgotten that Eastern peoples look down, metaphorically speaking, upon Western noses as incapable of appreciating any but coarse scents and strong perfumes. And there may be something in this. Any way, few Western poets would be disposed to speak, as King Solomon does, of the "vine with the tender grape" emitting a pleasing odour. Most people would think a very delicate and susceptible organ requisite to detect the faint odour of growing grapes.

Of the signification of the Hebrew word "Karkom" there exists, fortunately, no reasonable doubt. We are spared, therefore, in this case, the necessity of discussing the far-fetched conjectures of rival commentators. There is no difficulty in tracing both the name and the plant from the remotest antiquity down to the present day. The Persian designation is "Karkam," Arabic "Kurkum," and the Greek—which is of course identical with the name familiar to Englishmen—is "Krokos." The common origin of all these designations is self-evident; and it is easily accounted for by the fact that the Crocus was a

native of the Indian Valleys and the Persian Highlands, and gradually spread towards the West, carrying with it, wherever it went, the name by which it was known in its primitive home. The cultivation of the Saffron Crocus has always been an industry of some magnitude in the East. The books of the Hindoos contain innumerable references to it. Among the Greeks Homer, Theophrastus, and Dioscorides allude to the plant, and mention the several uses to which the product Saffron was put in former days.

The "Karkom" or Crocus of the Song of Solomon is the Crocus Sativus, the true Saffron plant. From the context, which refers to a garden, it is evidently a cultivated variety. It abounds to this day in Asia Minor, and grows wild in Palestine. It differs somewhat from the familiar blossom of European flower gardens; the leaves are rather narrower, and the blossom is somewhat smaller. The flower is pink, purple, yellow, white, or blue, and it has occasionally been found red. The plant is bulbous-rooted, and has a lotus-like appearance when the petals are fully expanded. In spring, after the heavy winter rains have passed, the Crocus springs up like magic, "covering, with a carpet as varied as a kaleidoscope, the generally drab livery of the country."

The parts gathered by the peasantry are the stigmata and the style which contain the odorous and

colouring principle of the plant. These, when dried, look like little bits of shrunken, withered string. They have a peculiar and, to Europeans, not altogether agreeable smell, and a decidedly bitter flavour. Pounded in a mortar and pressed into cakes, they form the saffron tablets of the eastern bazaar and markets; and left *au naturel* they constitute the well-known saffron of commerce. Saffron, properly *zafran*, is the Arabic word signifying yellow; and the Arabs frequently, or rather generally, use the word to designate the Crocus itself that produces the condiment.

Among the ancient Jews the Crocus and its product saffron were used for quite a variety of purposes. The leaves were strewed upon floors along with sweet-scented reeds and rushes; and they were employed for stuffing the divans and couches upon which the wealthy reclined at meals. Extravagant people distilled a scent from the blossoms, and threw saffron cakes into fountains that played in the court-yards, in order to diffuse the odour throughout their dwellings. Little bags filled with the petals were worn about the person as a preventative against sickness. As a condiment for flavouring food saffron was esteemed second to none. To be deficient or sparing of saffron in the confections, cakes, and sweetmeats served up to one's guests, was to be ignorant of the ways of good society among the Jews, and stamped a man as a niggardly host and

an underbred person. The Talmud, of course, contains a good many references to the Saffron Crocus. But the "Karkamo" of the Rabbins referred to in Tractate Sabbath of the Talmud as a medicine for women, and in the treatise "Kelim" as a colouring matter, should not, in our opinion, be confounded with the "Ḳarkom" of the Bible.

The Crocus proper appears to have been known to the later Jews of the Talmudic period by the term "Haria," perhaps from a root signifying to pound. It is mentioned in Tractate Ukzim and the Tosephta. The plant is also probably intended in the passage of Beza, where the word "Merika" is used.

According to a well-known legend which the Greeks obtained from the Syrians, the river-flag or reed fell in love with the earliest spring flower that blossomed. But the flower rejected the suit of the water-reed in disdain. Whereupon the flag was changed into the yew tree, mourning always for its lost love, and the spring blossom into the Saffron Crocus. The ancient Syrians made large use of the Crocus in their heathenish sacrificial rites and hideous ceremonies. It garlanded the head of the ox they immolated upon the high places of their deities, and often the brows of the children whom they hurled from the rocks of the mountain side, to propitiate their god Moloch.

V.

THE MYRTLE.

THE Myrtle is among the best known of Bible Plants. Strictly speaking, it scarcely comes within the category of flowers, popularly so-called. It is a bush, classed, perhaps, among the shrubs, like the Aloe and Myrrh-tree of the Sacred Scriptures. It is, nevertheless, the daintiest of Eastern flowering plants, producing the bridal blossom *par excellence* of the Jews of old; and it yields in interest, as in beauty and fragrance, to no one of the floral gems alluded to in Holy Writ. Its Hebrew designation is "Hadas," and, like Susannah, it was a favourite name for girls. It will be remembered that Esther's real name was Hadassah, *Anglice* Myrtle. There is, in the case of the Myrtle, no doubt as to the signification of the Hebrew word; it exists to the present day in Arabic, surviving still in the ancient dialect of Southern Arabia and in the popular speech of the Arabs of Yemen. Even the "as" of the vulgar and debased tongue of modern Palestine is only a contracted form of the old Hebrew "Hadas," designating this most charming flowering bush.

The plant is referred to in the Scriptures in four passages—in Nehemiah (viii. 15), where the Israelites are ordered to pluck Myrtle branches from the Mount

of Olives to deck the booths they erected for celebrating the festival of Tabernacles; in Zechariah (i. 8, 9, 10), where the vision of the horses is stated to have taken place among the Myrtle trees; in Isaiah (xli. 19), which reads, "I will plant in the wilderness the Cedar, the Shittah, and the myrtle;" and (lv. 13), where, in the beautiful passage prefiguring Israel's joyous future, it is said, "Instead of the thorn there shall come up the fir; and instead of the briar shall come up the myrtle." Among the Jews the Myrtle was pre-eminently the festive flower, the symbol of rejoicing. Hence it is peculiarly appropriate in the passage where "the mountains" are spoken of as "breaking forth into singing": and the "trees of the field clap their hands" for joy.

To this day the Myrtle is widely distributed throughout the whole of Palestine. The variety found there is the Myrtus communis, the true "Hadas" of the Scriptures. It no longer decks the Mount of Olives, as it did in the days of Ezra and Nehemiah when the Israelites returned from their seventy years' exile, though Hasselquist says he found it there in the last century. It grows wild in Samaria; and Galilee, which appears to be its home, abounds with it. It literally covers the banks of the rivers there and the sides of the running streams, and flourishes luxuriantly wherever the roots can manage to find a little moisture and nourishment. It is said to be widely distributed over the Lebanon; but its favourite

haunts are deep and well-shaded valleys and sheltered gorges between the hills. It flowers in the spring; its blossom, pure white and waxen, is one of the daintiest things imaginable. Its odour, developed by the glowing sun of the East, is delicious yet not overpowering. Seen in the clefts of the Leontes and the dales of Gilead, the Myrtle, with its glossy, dark-green leaves and delicate white flowers intermingled, is something to be remembered. In autumn it produces an abundance of black berries, which, in ancient times, were eaten by the Jews as a condiment, and nowadays are used to extract an oil from and even to prepare a drink, a kind of wine.

From the blossom of the Myrtle a perfume not unlike lavender water is distilled. In the bazaars of the East the dried flowers, leaves, and berries are exposed for sale in separate little heaps. The leaves are much in request for stuffing pillows, and are supposed to conduce to sleep and keep off vermin. The odour, too, is considered especially healthful for children. The plant is used in tanning the famous Damascus leather, hence its odour and durability.

The species of myrtle anciently known to the Jews was not a very tall variety. At least, so we should infer from a remark of the Rabbi Ben Azai in the Talmud, Tractate Megillah. He says that "Queen Esther was like a myrtle plant, neither tall nor short." This applied of course to the common kind; but there is reason to believe there was also a cultivated variety

grown, and it is possible that the three-leaved species, which is considered *the* myrtle for ceremonial use, was only an artificially propagated sort from the common stock. Certain it is that the three-leaved will revert, when it can, to the wilder state, bearing only two leaves. The cultivated Myrtle appears to have been a great favourite among the Jews at all times. It formed the bridal wreath of a virgin, but of a virgin only, for a widow or a divorcee was not privileged to wear it. It seems to have been part of the Sabbath decoration of the houses of Jews. Anent this, there is the following in the Talmud. When Rabbi Shimon ben Yochai and his son, Rabbi Elazar, came out of the cave one Friday afternoon—they were some ten years hidden in this hollow—they saw an old man hurrying along with two sprigs of myrtle in his hands. "What," said the Rabbins, accosting him, "dost thou with these flowers?" "I take them," was the reply, "to smell in honour of the Sabbath." "But," urged the two Rabbins, "one twig would be sufficient for the purpose; wherefore two?" "Nay," answered the old man, "one I take in honour of Zachor, 'Remember,'—the word used in Exodus—and one in honour of Shamor, 'Observe,' which is used in Deuteronomy." Evidence this of the uses to which Myrtle was put on Sabbaths and Holidays among the Jews.

It was believed, of old, that the eating of Myrtle leaves conferred upon one the power of seeing witches

and demons. The crackling of the leaves in the hands was considered by Eastern maidens proof of the fidelity of their lovers. Among the Syrians and other ancient inhabitants of Palestine, the myrtle, curiously enough, was used as a charm against the severe penalties attending widowhood in a very curious manner. Prior to the wedding ceremony proper, the bride was taken to the nearest stream where a myrtle grew. There she was formally married to the plant, from which a branch was afterwards broken and cast into the running water. This conferred upon the young woman the privilege, at any time, of divorcing her real husband. In the event, then, of anything happening to him, as in the case of a mortal sickness, she had only to pronounce the formula of separation, and was free, reverting immediately to her floral spouse, and thus avoiding the pains and penalties and enforced seclusion imposed upon a widow in so many Eastern countries.

According to Jewish tradition, the Myrtle is the "'Etz'Aboth" of the Pentateuch, which the Israelites were ordered to use in celebrating the Festival of Tabernacles. The Authorised Version renders the Hebrew of Leviticus (chap. xxiii. 40), "boughs of thick trees." But for more than two thousand years the Jews have taken the words to mean "branches of myrtle," and have used these among the four species prescribed for the Feast Succoth, thus practically settling the identity of the plant. And when it is

borne in mind that this practice dates from the period of the second Temple, there can be little doubt that the identification is well grounded.

VI.

THE HENNA, OR CAMPHIRE.

TWICE in the Song of Solomon do we find a reference to a flowering plant, which the authors of the Anglican Version, in their botanical wisdom, thought proper to identify by the designation "Camphire."

> "A cluster of Camphire is my beloved to me,
> Of Camphire from the vineyards of Engedi."

So says the Royal writer of the immortal amatory poem in the first chapter, verse 14; and the reference to the locality here mentioned, "Engedi," should be noted. In connection with other sweet-smelling flowers, the same plant is mentioned in the thirteenth verse of the fourth chapter.

> "The fragrant Camphire and the Nards."

The Hebrew word used in the passages before quoted is "Kopher"; and the *lucus a non lucendo* principle upon which the translators of the English Bible went to work in settling the designation of the flowers named in Scripture, is nowhere more apparent than

in their rendering of this by "Camphire." It does credit, however, to their powers of imagination, if nothing else. "Camphire," it is necessary to point out, is the old way of spelling what we nowadays call "camphor." And as camphor—the tree that produces it no less than the product itself—appears to have been quite unknown to the ancients; and there is not a tittle of evidence forthcoming to show that Easterns knew of the existence of such a substance, the correctness of the translation "Camphire" in the passages of the Song of Songs may easily be surmised.

Like a good many learned people of our own times, the translators appear to have been led astray by what Max Müller roughly stigmatises as "bow-wow philology." A fancied resemblance between the Hebrew "Kopher" and the Arabic "Kaphoor"—the designation by which camphor is generally known in the East—led, in the first instance, to the translation "Camphire." But this was not sufficient. For a further notion that it might be related to the Greek "Kupros," led to the substitution, as a marginal reading, of the word "cypress," which is found by the side of the other as an alternative rendering. Not but what some of our Jewish commentators have also been similarly led away by the *ignis fatuus* of an absurd and untenable etymology. The most learned and critical of mediæval rabbins, Kimchi, says Aben Esra thought it the "calyx of the palm tree," on the

strength of its looking something like the Targumic "Kophri," while another rabbin says the "eshkol hakofer" of the original text means only a cluster of grapes.

There has, however, never really been any difficulty in settling the identity of the plant here in question. The "Camphire" of the Authorised Version, and the "Kopher" therefore of the Bible, is the well-known "Henna" of the East. It is a plant of which everybody has heard, though few probably have ever thought of it as a Bible-flower. It furnishes the favourite dye of the Eastern female world, the indispensable toilet requisite of the Mohammedan belle. Its botanical designation is "Lawsonia inermis"; more exactly perhaps styled "Lawsonia Alba," a very beautiful flowering shrub, universally esteemed throughout the East from the very remotest times on account of the fragrance of its blossoms and the colouring property of its leaves. It is from the latter in all probability that it derives its name in Hebrew; "Kopher" being allied to "Kaphar," to cover or overlay, hence to paint—as was the custom of Jewish women—with the unguent formed of the Henna leaves. The Henna is a fairly tall plant, growing from six to ten feet high, and producing at the extremity of its branches beautiful clusters of snow-white flowers, tinged oftentimes with a pale yellow. Each blossom has four petals, slightly curled; and between each petal are two white filaments, both surmounted by a

golden anther and one solitary pistil. The leaves are long, oval-shaped, and of a delicate pale green. The whole plant is one in the highest degree "grateful to the senses of sight and smell." The deep grey bark of the stem, the transparent, emerald green of the foliage, the rich blending of white blossoms, interspersed with golden anthers—something resembling in habit of growth our English spring favourite, the lilac—contribute to make the Henna conspicuous among flowering plants, and second in beauty not even to the Myrtle in full bloom. The clusters of flowers exhale a delicious fragrance that fills chamber, garden, and forecourt. Branches are to be found scattered about the apartments of the Easterns; and no fair inhabitant of the Harem or Zenana considers her morning toilet complete without a sprig or two of the scented blossom fastened to her loose robes or even carried in her bosom—recalling in this respect the poetic allusion of the Song of Songs, "My love is to me as a cluster of Henna flowers—of Henna flowers from the gardens of Engedi."

The popularity of the Henna, whether as a perfume or dye, dates from the very remotest times. The fashion of tinting the skin with it is among the most ancient in the female world. Mummies, from the period of the earliest of the Egyptian dynasties, have been found with nails and finger tips dyed with the much admired unguent prepared of the dried leaves. In Deuteronomy (chap. xxi. 12), there is a reference

to this "ancient custom" and the use of Henna; for there can be no doubt that the Hebrew words rendered "Thou shalt pare her nails," should be translated "Thou shalt tint her nails," even as is the wont of Eastern women to this very day. Jezebel, the infamous wife of Ahab, we know from the Book of Kings, "painted," as the phrase is. She had seemingly, according to the Bible account, but finished her toilet when Jehu, returning to Jezreel, ordered her to be thrown from the window. The prophets Ezekiel and Jeremiah are eloquent against the painting of the face and eyebrows, to which Jewish women were addicted. But, it will be noted that nothing is said against the practice of using Henna for finger-tips and nails. And the reason is this: the custom of applying the dye to the finger tips, toes, soles of the feet and the palms of the hand, was not originally a mere vagary of women's fashion, or a simple eccentricity of feminine taste. It was as a remedy against profuse and unpleasant perspiration that it was done; a matter of skin-hygiene, tending to cleanliness of person, just as shaving the head was and is, in Eastern lands. It is for this reason that it is ordained in the passage of Deuteronomy, before adverted to, in the case of a strange woman whom an Israelite desired to espouse; and no doubt the same reasons induced the prophets named—while eloquent enough where vanity, pure and simple, such as pencilling the eyebrows and painting the

face, was concerned—to say nothing against the, to Easterns, cleanly practice of staining the fingers, toe nails, and the palms of the hands. It was rather a custom to be commended; for the proverbial lore of the Orient warns men against marrying a girl who is not dexterous in using Kohl, and also "in pencilling her eyebrows and in staining her fingers."

The Henna is only to be found nowadays in one single locality in Palestine—at Engedi; there and nowhere else. This fact is, as we before hinted, noteworthy; for it certainly is a remarkable thing that of all places in the Holy Land it should, more than two thousand five hundred years after Solomon wrote, only be found in the very spot where the Song of Solomon localises it, "in the vineyards of Engedi." It certainly shows, if nothing else, that the plant has had an uninterrupted existence in that place for upwards of five-and-twenty centuries. Dr. Shaw, the botanist, tells us the "Kopher" needs a deal of water, in order to flourish and blossom; and from Ezekiel xlvii. 10—"The fishers shall stand upon it from Engedi to Eneglaim"—we gather that Engedi was a watery locality, specially favourable, therefore, to the growth of the Henna plant.

VII.

THE LOVE-PLANT, OR MANDRAKE.

FROM the time of the Rabbinical Sages Rav and Jonathan—whose remarks are embodied in the Talmud—to the present day, the controversy as to the signification of the Hebrew word "Dudaïm" has waxed hot and fierce; and of course, as usual in such cases, without any adequate reason. The word occurs only twice in the Scriptures; once in the curious and naïve narrative of Genesis (chap. xxvi. 5, 6), where Rachel bargains with Leah for the "Dudaïm" which Reuben found in the fields; and once again in the Song of Solomon (chap. vii. 13), where the Royal lover invites his beloved into the garden where the plants he names are ripening. It is translated in the Anglican version "Mandrakes"—the Hebrew, be it noted, is only found in the plural. But what plant is really meant by the word Dudaïm has been even in late years angrily debated. To such an extent has the controversy raged that there is a perfect literature centring round it. The Talmud, Tractate Synhedrin, (99B) does not help us much in solving the difficulty. The Rabbi Rav says the Dudaïm are the mandragora. The Rabbi Levi says they are daffodils and Jonathan believes that they were violets. Modern critics and commentators have been no less divided

in their opinions. Rudbeck, the ingenious person who asserted that the quails with which the Israelites were fed in the Wilderness were flying fish, says the dudaïm were bramble berries. Celsius holds they were the Cyrenian lotus. Certain occult rabbins believe the plant to be a mystic growth of the night, and others the banana. Faber suggests the small sweet-scented melon of Persia and Arabia, while Luther actually translated the word "lilies." This, it must be admitted, is a pretty fair selection from which the unlearned reader is left to take his choice.

Leaving aside the vagaries of the learned, there is no great difficulty in settling the identity of the flower here in question. The Hebrew signifies "love-plant"; and this, for reasons that are almost self-evident, can only apply to the Mandrake proper, the mandragora officinalis, the "shrieking horror of the fields," as poetic legend terms it. The Septuagint version of the Scriptures, the Vulgate, the Syriac, the Arabic and the Targum all agree in rendering dudaïm by the equivalent mandragora, the "mela mandragora" of the Greeks. The Chaldean paraphrase of Onkelos calls them "Yabruchim," the Syriac "Yabruch," and, to make philological assurance doubly sure, to this day the Arabs call the mandrake "Yabrohak." And everywhere in the East the old reputation of a love-plant clings to the "mandrake of the fields." In classic mythology the mandragora is Venus's own plant, and the fruit it bears is known

as the love-apple. From the Bible narrative we gather that the dudaïm there mentioned were ripe about the time of the wheat harvest; they were considered a remedy for barrenness, were credited with the power of provoking desire and affection, and inciting to love; hence their designation. Hence, too, it was that Rachel, being barren, desired the dudaïm her nephew had found in the hope of rivalling, by its means, the fruitfulness of her sister Leah.

The Mandragora answers precisely to the requirements of the Scripture narrative. It is a small, though conspicuous-growing plant, with a spindle-shaped root generally divided. Early in spring, often as early as Christmas, it sends up a broad disk of leaves, dark green, long, sharp-pointed and hairy, something like a primrose, but double its size—the leaves are a foot long and four inches wide. The blossoms, which show themselves soon after the leaves, are of a rich purple, and cup-shaped. Early in May—towards the "time of the wheat harvest," that would be—the fruit ripens. It is the size of a small apple or plum, perfectly round, and in colour a tawny yellow or orange. It is full of pulp and juice, and those accustomed to the flavour find it agreeable. On the lower stages of the Lebanon and Hermon the Love-plant ripens as early as April, and the withering leaves and yellow fruit cover the ground in favourable situations. The Mandragora is a member of the

Solanaceæ or potato family, a relative too of the deadly nightshade of our own familiar fields, and allied, therefore, again, to the "Gaphné S'dom," or Sodom-apples of the Dead Sea region.

Some hypercritical commentators have objected to the identification of the Mandragora or Mandrake on the ground that Solomon's plants are said to "give forth a smell"—that is to say, a presumably pleasant odour, while the love-plant has anything but an agreeable perfume. To this it may be replied that such critics miss the point of the verse altogether. The writer of the Song of Songs calls attention to the smell of the Mandrakes only as evidence or token of their ripeness, and his invitation to his beloved to come into the field where the fruit is fit for consumption is only then understood when we bear in mind the reputation of the plant as a provocative of desire and affection. As the Royal lover sings, "there will I give thee my loves." This reputation, as we have hinted, survives still. Ancient Eastern tradition holds the mandrake to have been a fruit of Satan's production. The Arabs—alluding to the lasciviousness induced by a free consumption of the fruit—actually call it "tuphah es-sheitan," the devil's apple; while about Mount Lebanon, where it is still valued by the women for the same reason as it was desired by Rachel of old, it is known as "Baidh el-Jinn," the Eggs of the Genii, of course in reference to its fecundifying properties. Eastern ladies who have no

children still gather and eat them slyly, in the hope of increasing thus their chances of having offspring.

In other respects the Mandrake has from time immemorial enjoyed a most unenviable reputation. Josephus, in his History, refers to some of the superstitions connected with the plant. The root was held by Easterns to have a resemblance to the human body. This belief was shared by the Greeks, hence they called it "Anthropomorphon," for it was supposed to embody a human soul. It is still, as of old, believed to shriek and groan when torn out of the earth. In former times, the only way in which to get the plant up was said to be to tie a dog to it and let the animal pull. As the plant came up, it shrieked, and the shrieks invariably killed the dog. Representations have been found of the gods showing men the Mandrake, the dog in the agonies of death lying upon the ground. It must, however, be conceded that the Eastern mystics and medicine-men were equal to the occasion; for they found—what did they not find?—that three circles drawn round the Mandrake with a sword enabled the dog to survive the horrid shrieking of the plant when torn out by its roots. Its Greek name Mandragora signifies a "dweller in dark places"—a plant that grows and flourishes beneath gibbets. Poets fancifully speak of "its human hands and human feet." Its shrieking is often referred to. "Would curses kill as mandrakes groan." In allusion to its being

a plant especially affected by men who would transform themselves into wolves, the Mandragora has been called also the wolves-cherry.

In the middle ages even, superstitions were current about the mandrake to an almost incredible degree. Pieces of gold shaped like a mandrake root were worn as charms by women about the person, and enormous prices were paid for such ornaments. Even the water in which the root had been washed was in esteem for sundry purposes. To this day Arab women carry a piece of mandrake root about with them in compliance with the ancient superstition that made the plant a remedy for barrenness.

VIII.

THE ALOE.

THE "Ahol" of the Hebrew Scriptures—the "Aloe" of the Anglican Version—which only occurs in one of its double plural forms, "Aholim" and "Aholoth," is one of the comparatively few plants mentioned in the Bible, the identity of which may be taken as settled beyond any reasonable doubt. Not but what a fairish number of quibbling commentators have endeavoured to create confusion, where none existed save in their own illogical minds. But the testimony, united, of tradition and philologi

cal analogy and botanical fitness have, however, in this instance proved sufficiently conclusive to establish the signification of the Hebrew term in the few passages where it is found, to the satisfaction of all competent authorities.

In the Book of Numbers, in the well-known episode of Balaam and Balak, the word occurs in the feminine plural form "Aholoth," and is rendered correctly, Lign-aloes—"How goodly are thy tents, O Jacob. . . As the valleys are they spread forth, as gardens by the river side, as the trees of Lign-aloes which the Lord hath planted" (chap. xxiv. 6). From this it has been inferred that the feminine plural form is used only to designate the Aloe-tree proper, and that the masculine plural form applies to the product, the so-called "Aloes" of the Bible. But the distinction is not maintained; for in Psalm xlv. 8, the feminine "Aholoth" does certainly not refer to the tree. "Thy garments smell of Aloes and Cassia." The masculine plural form "Aholim" occurs in the Book of Proverbs (chap. vii. 17), "I have perfumed my bed with Aloes." Here it evidently signifies the product of the tree as in the previous passage from the Psalms. So again, in the Song of Solomon, where the same form is used (chap. iv. 14), "Calamus and Cinnamom with all sweet smelling trees, and Aloes with all spices," it can neither designate the Lign-aloe tree, nor the wood of the Aloe which, like sweet smelling rushes and odoriferous canes as well as

Sandal-wood, were used for strewing upon couches and in chambers, and for perfuming dwelling houses.

The plant referred to, and the plant generally cultivated in Palestine and known among the Hebrews as the "Ahol," is a variety of the flowering Aloe, the shrub, designated by botanists Aloe perfoliata. It grew wild by the sides of rapid running streams and in moist-lying grounds. It attained in such favourable situations a height of from eight to ten feet. Its habit of growth is rather peculiar. It commences to branch at a very short distance from the ground, tapering gradually, and forming a kind of circular pyramid, having in the distance the shape of a bell tent. These Aloes were frequently planted so as to form an avenue. It is therefore easy to understand how the sight of the tents of Israel, arranged symmetrically, as described in the Book of Numbers, should at once have suggested to Balaam the figure of plantations of Aloe trees by the river banks. On account of its beautiful foliage and agreeably-scented leaves and spikes, it appears to have been extensively cultivated in the luxurious gardens or Pardesim of the ancient Jews.

This cultivated or garden variety of the Aloe was much smaller in size than the free-growing shrub; but the smallness was more than compensated for by the enhanced beauty of the leaves, and the heightened aromatic properties resulting from judicious cultivation. It is to this particular species of Aloe that

the Royal Author of the Song of Songs refers in the passage we have before quoted. It may not be unnecessary to remark here, that the Aloes of the Bible used for scenting rooms and couches and garments had nothing in common with the nauseous product of the Soccotrine Aloe, which is used in medicine. The two things are distinct as can be. That the fragrant Ahol should have been a great favourite with the Jews—ardent admirers, like all Easterns, of sweet scents and aromatic odours—may be understood when it is borne in mind that the Aloe of the finer species and the variety cultivated by the Hebrews of old, is the most odorous plant known to botanists; and the exudation of the Lign-Aloe is probably the most agreeable of its kind that exists. The various preparations of the Aloe, the gummy juice, the dried leaf blades—they are nearly four feet in length sometimes—the pointed spikes, the aromatic pastils, and sections of the sweet-smelling wood, were all of them articles of commerce in the Ancient World, and staple commodities, like saffron and cinnamon and myrrh and cassia, with the Phenician traders, who brought them by overland caravans oftentimes from the far East, and distributed them by means of their mercantile marine to the seaports and cities of Greece and Rome.

Among flowering-shrubs—as distinct from flowers pure and simple—the Aloe was regarded in Eastern lands as unapproachable, a plant without peer or

equal. It was, as the phœnix among birds, the most wonderful of the flowering tribes. Indeed, it is doubtful whether we can understand the high esteem in which it was held by the Jews. The specimens to which we are accustomed in our greenhouses are not such as to evoke any great enthusiasm. But there are varieties, free-flowering and odorous, which, if carefully grown and tended, would attract as much attention as the rarest orchids. The flowering varieties of the Aloe, in favourable situations, blossom freely, and its flower-cluster is of a very remarkable kind.

Popular belief in the East holds the Aloe to be the only flowering plant that has descended to us from the Garden of Eden; all others it is said were lost. Adam, when leaving Paradise, is fabled to have taken with him one shoot of the plant, which he transplanted in the land wherein he settled; and from this shoot the Aloes of the later world are said to be descended. Hence, by the way, the designation "Paradise-shoots" by which the Aloe is sometimes called in many Oriental lands, and in the farther East, of which it is a native. Some six or eight varieties of Aloes are found in Eastern countries stretching from the Mediterranean Sea to the Celestial Empire. All are more or less fragrant, and they are still as much esteemed as in former times by the Hebrews.

IX.

THE BALSAM, OR BALM.

OF the many fragrant plants referred to in the Hebrew Scriptures, there is none more essentially Jewish in its associations, than the well-known Balsam, or Balm-tree, designated in the Hebrew "Tsari," and identified, as a rule, with the so-called Balsamodendron Gileadense of botanists. Its product, the far-famed "Balm of Gilead," is familiar to the most perfunctory readers of the sacred writings; and its virtues are to this day everywhere extolled in the East, where its reputation as a healing unguent is as great as among the Jews of old. Strictly speaking, the Balsam does not come under the category of flowers proper; it certainly attains to the dignity of a shrub, though a very small one, but it cannot be excluded from a series of flowering plants which necessarily includes such beautiful flowering-shrubs as the Rock-rose, the Myrtle, and the Nard. The English word "balsam" is derived from the Hebrew term "Bosem"—the Phenician form of which is "balsam"—rendered incorrectly in the Anglican version "spices," for the reference in the Song of Songs, v. 13—"His cheeks are as a bed of spices," that is, "His cheeks are as a garden border planted

with balsams"—makes it abundantly clear that it signified a plant and not an aromatic product. The Tsari must not, however, be confounded with this Bosem. It is a distinct and wholly different thing. It was a native of Gilead, and seemingly of Gilead only; and was always regarded, as we gather from Jacob's remarks when sending some as a present to Joseph (Genesis xliii. 2), as among the most "precious products of the land."

The Balsam can be traced back to the remotest antiquity. It was from the earliest times an article of commerce carried by the trading caravans of Egypt (Genesis xxviii. 25)—"A company of Ishmaelites came from Gilead with their camels bearing spicery, and balm, and myrrh, carrying it down to Egypt." Ezekiel refers to it (xxvii. 17) as one of the four things with which the Jews regularly supplied the Phenician markets, "Judah and the land of Israel were thy merchants, they traded in thy markets wheat of Minith and Panag (?), and honey, and oil, and balm." Jeremiah's exclamation, "Is there no balsam in Gilead?" (viii. 22) has passed into a proverb; and the repute of the balm is again hinted at by the same prophet when he says to the daughter of Egypt, "Go up into Gilead and take balm," and of Babylon, "Take balm for her pain, if so, she may be healed."

Tradition has it, that the introduction of the Balsam into Palestine proper was due to King Solomon. It

was cultivated very largely and with great success in the flourishing plains about Jericho, where it grew luxuriantly, and though never attaining a large size, produced an unguent of a superior kind. The first root planted there was a present, it is said, from the Queen of Sheba to King Solomon, on the occasion of her visit to the Jewish monarch. According to Josephus, the Balsam was only to be found in the gardens of Jericho in his days.

Cleopatra, the famous Egyptian Queen, is stated to have obtained from Jericho the Balsam plants which she cultivated in her gardens at Heliopolis, the ancient On, and which were so highly esteemed that an imperial guard was stationed there to protect the shrubs. The Balsam was regarded as the Emblem of Palestine, just as the Date-Palm was of Phenicia.

On two occasions the plant figured in the processions or triumphs of the Roman conquerors of Palestine—in the triumph of Pompey, after the first conquest of the Holy Land; and, along with the spoils of the Temple of Jerusalem, after its destruction, in the procession of Titus. This indicates in a curious and unmistakable manner how peculiarly the Tsari was considered a shrub indigenous to the land. It is almost unnecessary to point out, that, after the fashion of Eastern writers, the term designating the plant is used rather loosely. There are no less than three claimants to the honour of representing the Balsam of the Jews. Of these, however, only two are worth

noting; one, the "Balamites Egyptica," or Modern Balm of Gilead, and the other the "Balsamodendron Gileadense," or True Balm of Gilead. Both are included under the Hebrew designation Tsari, for there can be no doubt that Canon Tristram is right in asserting that the term—as applied to the product—was not confined to any one particular tree, but referred to preparations obtained from several of them, alike in general character, and alike reputed as healing unguents, but differing in esteem, and therefore in value.

The Balamites Egyptica, or Modern Balsam, is a very small, flowering shrub confined to a comparatively limited district of the Holy Land, and growing plentifully in the plains of Jericho and in the plains of Shittim, in Moab, and east of the Jordan—in Gilead that is. The Arabs call it Zukkun. It is an evergreen, with smooth, glossy bark, dark green leaves, and spines, short and pointed. The blossom is very tiny, and grows in tufts close to the stem. It produces a fruit resembling an unripe walnut. This is collected, pounded, and simmered, and then yields an oil, in taste and colour like the oil of sweet almonds, only much thicker. This is one kind of the Balm of Gilead which is still in great demand. The more highly valued species is the product of the Balsamodendron Gileadense, or True Balsam. This is no longer cultivated, as of old, in the plains of Jericho, but grows in the gardens and plantations

of Mecca, in Arabia. It is also a very small evergreen. It has a smooth bark, with very little foliage. Its blossoms are small and white, like the tufts growing upon the Acacia. It produces a reddish black fruit, containing a fragrant, yellow seed. But this is not distilled at all, as in the case of the false balsam. The true balm is obtained by making an incision in the bark of the plant from which a viscid exudation, of a pale, yellow colour, highly resinous and fragrant-smelling, then flows. This is the precious unguent referred to in the Bible; and it is curious to note that the Talmudic account of the Tsari tallies in a remarkable way with that here given. In Tractate Kerituth it is expressly stated that "the balm is only an exudation that is obtained from an incision in the tree."

It is quite possible that Syria derived its name from the Balsam supposed to be peculiar to the country. It is a fact that no satisfactory derivation has ever yet been found for this designation of the land. The original form was no doubt "Tsur," Hellenised into "Sur." It has been suggested that as "Tsor," "Tyre," was the best known city of the coast, the country was thence named. Much more probable is it that it was called after the plant so closely associated with it in the minds of the ancients. This mode of designating strange countries was very prevalent,—Cyprus after the "Kopher" plant; Rhodes from the Rhododendron, and Phenicia from

the Phoinike or Date-Palm. It would only be what one might therefore expect to find, that the country which produced the Balsam should be called after the plant peculiar to it.

X.

THE WORMWOOD.

THOUGH not, for an instant, to be compared with the majority of Bible Flowers in point of beauty, and endowed with neither comeliness of form nor sweetness of odour, the "Wormwood" may claim to have inspired—if such a word be permissible in the sense here meant—some of the most powerful and telling metaphors contained in the range of Scripture Writings. So striking is the simile furnished by this outcast of the field in one or two passages of Holy Writ, that it has taken the popular imagination, and has furnished a stock phrase to every European language; for the popular locution "Gall and Wormwood" is purely Jewish—purely Hebraic. The plant is frequently mentioned in the Bible. It is introduced with considerable literary effect by the Deuteronomist (Deut. xxiv. 18). In this passage, Moses warning the Israelites against going astray, bids them take heed, lest there be among them "a root that beareth gall and wormwood." The writer of the Book of Pro-

verbs makes similar use of the plant in the antithetical passage (ch. v. 2), where he speaks of the strange woman whose lips "drop honey," and whose mouth is smoother than oil. He says that "her end is bitter as wormwood." Jeremiah, in two places, refers to the Wormwood; in ch. ix. 15, and in ch. xxiii. 15. In the former, he threatens the people, and in the latter, the "lying prophets" of Israel, that Heaven "will feed them with wormwood, and give them to drink the water of gall." Twice, too, in his pathetic Lamentation on the downfall of Jerusalem, does the Hebrew Seer make metaphorical use of this flowering plant. "He hath made me drunken with wormwood," he cries (ch. iii. 15); and a little further on (ch. iii. 19) he paints his misery, "the wormwood and the gall." Amos (ch. v. 7) addresses those false and wicked leaders of Israel, who "turn judgment to wormwood," and in the following chapter he reproaches the heads of Israel that they "have turned judgment into gall, and the fruit of righteousness into wormwood." The Wormwood was known to the ancient Jews by the designation "La'anah," and the Authorised Version, in every place where the word is found, saving one, correctly renders it by its rightful botanic equivalent. This exception is in the sixth chapter of Amos. And in this passage the translators of the Anglican Bible have, probably for variety's sake, used the word "hemlock" instead of "wormwood." Why, it is impossible to conjecture; for the

Hebrew word in this instance is the same as that correctly rendered in all other passages where it occurs by the English term wormwood.

The genuine Wormwood—for the common Wormwood of indigenous growth is only a variety—is a truly Jewish plant. It is a native of the Syrian waste lands, and spread, in all probability, westward from its ancient Jewish or Semitic home. It is even known botanically as the Artemisia Judaica, or the Judean Artemisia, in order to distinguish it from other members of the family Compositæ, to which it belongs, and all of which are more or less bitter, disagreeable, and medicinal. Its Hebrew designation la'anah is preserved among the Arabs to this very day, in the form *la'ana*. Coming from a root signifying "to curse," the introduction of the plant in the imprecatory passages of Scripture was, of course, doubly effective in the case of Jewish hearers. It was the Apsinthos of the Greeks, and is the well-known absinthe-plant of modern Europe, to which, metaphorically speaking, the old curse seems to cling. The Wormwood no longer serves to furnish effective figures of speech, as among the Seers and Prophets of the Jewish Commonwealth. The utilitarianism of the age has turned it to more practical uses; and it is now employed in the preparation of the fiery abomination absinthe, which may claim to have damned as many souls as its rival, the supposititious distillation of the Juniper-berry—gin.

The Artemisia Judaica, or Jewish Wormwood, is a small flowering plant. It thrives in sterile and sandy soil. It has an erect stem about eighteen inches high, thin, but shrubby. It can be cultivated under glass, and makes a very ornamental greenhouse plant. Its leaves are small, blunt-lobed, and ovate. The flowers are stalked, and are formed in panicles. It blooms in the month of August, producing an abundance of yellow blossoms, which gradually open and retract their petals, and have a daisy-like appearance when fully expanded. The seeds as well as the leaves are extremely bitter, and have from time immemorial—Pliny among others mentions it—been esteemed as an addition to the Pharmacopœia. The Wormwood is one of the many plants connected in the popular imagination of the East with the Prince of Darkness. One legend current among the peasantry of the Holy Land has it that the Wormwood sprang up in the track of the Serpent as it writhed along the ground when driven from Paradise after seducing man to the eating of the forbidden fruit.

After the usual fashion of Semitic writers, the Hebrew word La'anah appears to have been used in a general rather than in a specific sense. It should, therefore, not be understood as applying to only a single, isolated, bitter plant. The Wormwood of the Bible, though specifically the Artemisia Judaica or Jewish Absinthe-flower, would include also other bitter, herbaceous, and flowering growths

of the same family, allied in character and qualities. Among these the most interesting are the Artemisia Romana, which Hasselquist found wild on Mount Tabor, and the Artemisia Abrotanum, which grows everywhere in Syria and Palestine. The former is largely cultivated in the gardens of the well-to-do and by the better class of peasant-farmers.

Careful culture modifies to a great extent the bitter and harsh taste of this variety of Wormwood, as well as its disagreeable odour. When cultivated in a generous soil, and having proper attention bestowed upon it, it acquires a very pleasant aromatic scent, and its bitter flavour, tempered by the aroma, is far from disagreeable. The leaves are chewed by Easterns as a stomachic bitter, and are certainly appetite-provoking, if the harsher varieties are avoided. The other species, the Artemisia Abrotanum, may almost lay claim to the dignity of a shrub. It has been described as a "hoary plant," attaining a height, in favourable situations, of four, five, and six feet, having numerous branches, on which are produced loose panicles of nodding flowers. The leaves and seeds are bitter, aromatic, and astringent. This Absinthe plant is, however, most highly valued among Easterns for the yellow dye it yields. Like its near congener, the Wormwood of the Bible, it thrives best in dry and sandy places. In all these plants—the Jewish Absinthe included—the roots are, strangely enough, but little infected

with the bitterness that pervades the leaf and seed. Hence the language of the Bible is singularly correct. For the warning of the Deuteronomist against a root that should bear Wormwood is strictly appropriate, as being strictly in accord with the nature and peculiarities of the La'anah, from which his metaphor was derived.

XI.

THE JUNIPER, OR SAVIN.

THE Hebrew word "'Ar'ar"—of which the form "'Aro'er" is only a variant—has considerably exercised the ingenuity of Bible critics and Hebraists. Indeed, it is scarcely too much to say that there is not a single plant-name in the whole of the Sacred Scriptures for which a greater variety of different, perplexing, and diverse meanings has been proposed. It is found only twice in the Old Testament; in Jeremiah xvii. 6, "He shall be like the 'Ar'ar' in the desert, and shall not see when good cometh, but shall inhabit the parched places of the wilderness, in a salt land and not inhabited;" and xlviii. 6, "Flee, save your lives, and be like the 'Ar'ar' in the wilderness." There can be no doubt whatever that the Hebrew word here used by the Jewish seer designates a plant; a well-known plant evidently, from the nature of the simile, one that grew "lone and forsaken" in the Judean wilderness and the sand

wastes of Southern Palestine, and one, it may be added, that was far from being a floral favourite with the ancient Hebrews. The scholar Gesenius proposes to translate the word "ruins"; and regards it, in the first passage before quoted, as an adjective signifying "forlorn." Another acute critic, Michaelis, suggests that the term means "Guinea Hens," on the usual *lucus a non lucendo* principle adopted by the guess-work commentators of the conjectural school. Some, again, have proposed the "tamarisk-shrub," and others the "broom"—that is, the "Rethem" of Scripture; while one of the botanical emendators goes to Hindostan in order to find a shrub that must have been common in the waste lands of Israel, and brings us the genuine "tamarind" of the far East for the plant which furnished the Prophet Jeremiah with so effective a simile!

From the nature of the simile we should judge the 'Ar'ar to have been a plant with a decidedly bad reputation among the Jews; one banned and banished as lying under a species of curse, since no good thing came nigh it. A plant, in brief, popularly regarded as unblessed, weird, and unholy. And authorities are nowadays pretty well agreed, that the flowering shrub here referred to is the Dwarf Juniper, the Juniperus Sabinus of scientific botanists, better known to the unlearned by its familiar name the Common Savin.

In the Authorised Version of the Scriptures

the Hebrew 'Ar'ar is rendered "Heath"—the Heather of our moors and hill sides. And this rendering is quite in accordance with the general perspicuity of King James's translators when dealing with the Flora of the Bible; for, as they confound the "Broom" with the "Juniper" in the well-known passage of the Book of Kings which records how Elijah fled into the desert from the threatened vengeance of Jezebel, so it is only in conformity with our expectations that where the "Juniper" is really meant they should go out of their way to give us as the English equivalent "Heath." In this translation, however, it is but fair to state that a good many critics and commentators support them; but not one of the sounder authorities on the Flora of the Bible or of the Holy Land. It is true that the Heath or Heather is pre-eminently the Flower of the Waste, as it is poetically termed. But "those wastes of heath, stretching for miles to lure the bee," of which the poet sings, are, as it happens, not to be found in Palestine, for the all-sufficient reason that "the heath never grows south of the Lower Lebanon," as Canon Tristram states. And the Prophet Jeremiah would hardly have made use of a simile in which he introduced a plant unseen, and, therefore, practically unknown to the people whom he addressed. There would have been no point to his metaphor had the plant not been one perfectly familiar to his hearers: the comparison would have been meaningless.

The contrast, too, may be noted which the great teacher draws between those that trust in God, flourishing as a tree planted by the waters, and those that trust in man, naked and destitute, growing like the 'Ar'ar in the desert. This would only apply in the case of some lonely and misshapen shrub found in the sterile wilderness—such as the Juniper of the Palestinian wastes. And, as though to clench the matter by bringing tradition—the living memory of the East—and philology in support of the identification, the Arabs have, to this very day, preserved the ancient Semitic plant-name in their botanical vocabulary, and they call the Juniper or Common Savin of our land, "Arar," using the selfsame Hebrew word as the Jews of old employed to designate the selfsame shrub.

The Savin, or Dwarf Juniper, is a small, flowering plant, belonging to the Cypress tribe and Conifer-bearers, and a member of the turpentine-producing family. It is well known all over Europe, and is found in the wilder districts of Great Britain. It attains, in good soil, a height of some ten feet, forming a highly ornamental and hardy evergreen. In the Desert of Judea, and the Wilderness generally, it remains a humble, prostrate shrub, gloomy and stunted in appearance. It has scale-like leaves, which are pressed close to the gnarled and knotted stem. The wild goats crop its foliage, which, by reason of its dwarf growth, is easily accessible to

them; and, clinging alone and sole to the rocky projections of the Desert, the Juniper is as weird and unholy-looking a shrub as one could desire to meet with. It is little wonder that superstition has gathered round it in the desert, and made it Asmodeus' favourite—the Devil's own leaning-post, as the peasantry say; and that its stunted and dark and gloomy appearance is attributed to the agency, the personal agency, of Satan himself.

When—according to a legend common to Jews and Mohammedans—King Solomon was building the Temple, and desired to obtain the Shamir, or Worm, which placed upon a stone cut through it, and rendered the employment of iron unnecessary, he was obliged to have recourse to the Prince of Darkness, Asmodeus. By a cunning device, Benaiah, the son of Jehoidah, trapped him, having filled the well of water from which the Demon usually drank with wine, and chained him while in a drunken sleep. When on the way to Jerusalem a captive, Satan paused to rest. The fellaheen of Palestine say that a palm-tree was near, and he leaned against it. Instantly, the stem shivered as though struck by lightning, the trunk grew gnarled and knotted and distorted, the bark became black and thick, and the whole plant shrivelled up as with heat. The date fruit was dwarfed into a berry, and the palm, once erect and graceful, was transformed by Asmodeus into the hateful and stunted Juniper. And Satan's

own flavour seems to have got into the berry the plant produces, in the shape of an astringent and supposititious tonic and stimulating principle which is distilled from it, and forms the flavouring basis of the compound known as Gin. In this respect the Juniper, or Savin, like another shrub, the Absinthe plant, has maintained its degeneracy since Bible times, and is applied to uses vile enough to justify, in our days, the evil reputation it enjoyed among the ancient Hebrews.

By preference—if the word be admissible—the Juniper of the Holy Land grows in wild, inaccessible positions, where it "fronts alike the glare of the noonday sun and the force of the simoon." It is found hanging from precipitous rocks "even to the summits of cliffs and needles." Its branches are straight, much ramified, and form, when cultivated, a regular pyramid. The younger branches are entirely covered with imbricated leaves, which have a very strong and very disagreeable odour, and an extremely bitter taste. As a rule, the sexes of the Juniper-plant are strictly distinct; male flowers being produced on one shrub, and female flowers on another. After the flowers have appeared, in May and June, they are succeeded by a deep blue berry—so deep as to be almost black—about the size of a currant. There is also a Phenician variety of the Juniper which has a pale yellow fruit. This ripens only every second year. The essence contained in the herbaceous and fruity

portion of the plant is precisely like turpentine. The fruit or berry of the Common Savin contains sugar; hence the practicability of distilling it. It yields also a medicinal extract called by the Arabs "rob," sugary, resinous, and stomachic; while the wood has, from time immemorial, been used in the East for fumigating purposes.

XII.

THE ROCK ROSE, OR MYRRH-FLOWER.

IN the remoter districts of Palestine, the traveller will hardly fail to notice, in early spring, a small and luxuriant-growing plant, about the size of a dwarf rhododendron, thriving amid the sand and rock, and flourishing where even bunch-grass and cactus find it almost too much to draw a scanty subsistence. This plant grows everywhere, in the uncultivated highlands and the sides of mountain ridges, in the rocky clefts of the Lebanon, in the stony hills abutting upon the sandy wilderness and the sterile gorges in the vicinity of the Arabian wilderness. It blooms profusely, and is found a little later on in the season covered with a perfect mass of beautiful flowers, of a lovely rose colour, often of a deep, deep red, and resembling the wild roses of our own land. They are generally five petalled, with vivid, golden pistils and stamen, and approaching

very closely the native dog-rose, or the wild flower of the briar that decorates British hedgerows and country lanes: only in the gorgeous East they are of a fuller, richer hue. The flowers are produced in such abundance and so continuously that the plant is a veritable spike of blossom during the whole summer. This is the so-called Rock-rose, known also as the Rose-flowering Cistus—the Ladanum, or Labdanum, of scientific botanists. It is a favourite flower of Eastern peoples, and is a general favourite in Western lands.

Though unknown to the Bible by its botanical designation or the more familiar name of Rock-rose, its product, a well-known article of commerce in the East, is referred to in Genesis under the Hebrew designation "Lot." Late in the autumn of the year there exudes, from the leaves and other parts of this flowering shrub, a soft, glutinous gum, highly aromatic and sweet smelling, credited by Orientals with medicinal qualities, and highly esteemed from the earliest Bible times. As far back as the days of the Hebrew Patriarchs, this exudation was in demand as a toilet requisite of the fair sex, and a perfume of the same class as ambergris and frankincense. It is gathered nowadays by the peasantry, who use for the purpose a small stick round which a soft cloth has been carefully wrapped. It must be brushed off on a fine, calm day, or the quality of the gum will be affected. It is then carefully rubbed off, rounded into balls, and

after purification pressed into cakes. This gum that exudes from the Rock-rose or Rose-flowering Cistus, the product of the Lot-plant, is the "Lot" —mistranslated "Myrrh" in the Anglican Version— which Jacob, when pressed by his sons to allow them to go to Egypt to buy corn for their starving families, begged of them to take down, along with other spices and gums, "a little balm, a little honey, spices, and myrrh" (Genesis xliii. 11), as a present to his son Joseph, the unknown Governor of Egypt.

There are two Hebrew words found in the Sacred Writings which the translators of the Anglican Version of the Bible have rendered by the English equivalent Myrrh. One of these is "Lot"—used in the passage of Genesis we have referred to and indicated; the second is "Mor," found in various parts of the Old Testament. In Exodus xxx. 23, it is mentioned as one of the ingredients necessary for compounding the powder used as incense in the Tabernacle. In the Song of Solomon, v. 13, we find the comparison "lips like lilies dropping sweet-smelling myrrh." In the Book of Esther ii. 12, it is mentioned as a well-known toilet ingredient of Eastern ladies,—and in passing we may observe that it is regularly used to this day by the women of the Orient for the selfsame purpose of fumigating their persons. But the two Hebrew words are far from being synonyms; they are far from referring to the same substance, the product of one and the self-

same plant, as the Authorised Version of the Bible would lead the reader to infer. Two things are confounded by writers of King James's days. The two substances "Lot" and "Mor" are distinct, wholly and entirely distinct, and are the product of two quite dissimilar plants. Myrrh, the "Mor" of the Bible, is an exudation from a tree found in Africa, Southern Arabia, and Egypt. It is not now, and never has been, a habitant of Palestine. Hence the gum was an article of merchandise which was brought from afar by the Arab caravans—companies of Ishmaelites "bearing spicery, balm, and myrrh," such as are referred to in Genesis xxxvii. 25. The "Lot" of which Jacob speaks when addressing his sons is, on the contrary, a native product, for he expressly includes it among the "fruits of the land," the balm, honey, nuts, spices and almonds, which are to constitute the present.

The gum to which the Jewish Patriarch referred was the exudation of the plant known as the Rock-rose, or Rose-flowering Cistus. Its Hebrew designation, for it no doubt designated the flower as well as the product, survives in the ancient Greek name of the shrub, "Lad-amon" and in the Latin form (from which its botanical name is derived) "Lad-amus": the "amon" in the one case and the "amus" in the other forming only the characteristic suffixes of the respective tongues, the Latin and the Greek, when transliterating and adopting any

foreign words. There is in the case both of the term "Lot" and "Mor" no difficulty in identifying either the substance meant or the flowering-shrubs that produce them.

The Rock-rose is a small flowering plant, thriving only in hot and exposed situations. Its growth is close and compact, and in favourable sites, as between clefts of rock, and in limestone crevices, it hangs and trails in a most picturesque fashion. It is a perennial, and is known botanically as the Helianthum Vulgare. It is frequently called the Sun-rose and little sunflower. It grows well in this country, but nowhere do its flowers show such gorgeous colours as in the sand wastes of the Holy Land, where it revels in the chalky soil below and the glaring sunshine above.

A tradition—current among the Greeks of old as among Easterns—has it that the discovery of the gummy exudation of the Rock-rose was due to some goats, just as Mussulmans say the properties of coffee were in later times first noted by men through the antics of the same animals after eating some berries. It was found that whenever the goats had been browsing upon the tender shoots of the Ladamus, their long beards were afterwards covered with a sticky substance, which gradually hardened and gathered in little lumps. Dioscorides quotes this account, and so do other Greek authors. The Arabs have a very fanciful story about its discovery. They say it was

pointed out to a certain frail beauty of whom some demons—the "djins" or genii of popular story, the "shedim" or hairy ones and satyrs of the Talmud—had become enamoured. She sold herself to these sprites subsequently in return for certain worldly advantages, among which was the monopoly of the gum of the Rock-rose before unknown. Sheitan, the demon Prince, did not, however, get the best of the bargain in the end. For the lady, when fulfilment of the bond was claimed, desired to back out of the contract on the ground that the quality of the gum was not what she had been led to believe, or, in current mercantile phrase, was not "up to sample"; and on an appeal to Mohammed, the fair one's plea was held to be good in law. The Rock-rose and its products are referred to in the Talmud; and, in later times, there have been a good many critics who have held the Ladamus or flowering-Cistus to be neither more nor less than the Rose of Sharon.

XIII.

THE BULRUSH.

IT is almost unnecessary to remark that the Bulrush of the Scriptures—the water-reed of which Jochebed constructed the floating ark in which the infant Moses was placed among the Nile flags—was not a bulrush at all. In fact, it was nothing like a

bulrush; and beyond the circumstance of its growing in stagnant pools and flowing streams, it had nothing whatever in common with the familiar rush of our native ponds and lakelets. The Hebrew word, or rather words—for there are two—translated bulrush in the Anglican Version of the Bible, are "Gomeh" and "Agmon." The terms are identical philologically; and according to the best authorities, as in our opinion, designate one and the selfsame plant. They seem, however, to have considerably puzzled the worthy translators of the Scriptures, for they have been rendered in English by no less than four distinct and separate equivalents, each signifying a totally different thing. We have "a hook," in the passage of the Book of Job, where the speaker, referring to the Leviathan—probably the crocodile—asks, "Canst thou put a hook into his nostrils or bore his jaw?" (xl. 26); a "cauldron" in the same book, "Out of his nostrils goeth smoke as out of a seething pot or cauldron" (xli. 20); a "rush" in Isaiah, "The Lord will cut off from Israel head and tail, branch and rush" (ix. 14); and "bulrush" in the same prophet's utterances, "Bow down his head as a bulrush" (lviii. 5). Here we have a variety of renderings with a vengeance, such a selection as makes it something more than difficult for the average reader of the Scriptures to take his choice. There is certainly not much in common between a "hook," a "cauldron," a "reed," and a "bulrush"; decidedly

not sufficient to render it probable that one and the same Hebrew word was used to designate such utterly dissimilar objects.

The Gomeh of the Hebrews—identical with the Agmon—and, therefore, the Bulrush of the Bible, is neither more nor less than the famous Papyrus, the true Paper-reed of the ancients; the river-rush out of which the seemingly imperishable writing-sheets of the Egyptians were made. The plant has wholly disappeared from Egypt, its former home, but is still found in Palestine. Hooker came across it on the shores of Lake Tiberias, a few miles to the north of the town, where it appears to have existed uninterruptedly from the time of Theophrastus and Pliny, who saw and described it. The Papyrus-reed also grows in a small stream near Jaffa. Theophrastus actually says, "The Papyrus grows in Syria round the lake where the sweet-scented reed—the calamus (?)—is found." This no doubt is the Bar Tubarieh or Lake of Tiberias. And it is a curious fact that nowhere else in Syria is the rush to be discovered.

The Papyrus is a tall, thin, reedy plant, with a long angular stem, attaining a height, in favourable situations and marshy ponds, of fourteen or fifteen feet. It has no leaves whatever. It sends out a number of spikelets at the top, which grow on thread-like, flowering branches, and form a kind of head; and the blossoms, tiny, white, and insignificant, open

at the extremity of the spikes that crown it. When found in running streams it always turns an angle to the direction of the current. This peculiarity should be noted, for it is this peculiar habit of swaying with the current and bending to the water that makes the comparison of Isaiah, "to bow the head like the Papyrus," so telling.

From the Bible references we are enabled to gather the following particulars about the Paper-reed, which aid us to identify the Gomeh of the Jews with the Papyrus of the Egyptians. It was used for making boxes or baskets (Exodus ii. 3), "She took for him an ark of bulrushes." It grew in the soft, slimy mud of pools and streams (Job viii. 11), "Can the rush grow up without mire?" Boats were made of it (Isaiah xviii. 2), "that sendeth ambassadors by the sea even in vessels of bulrushes upon the waters." It is included among the water-reed species generally (Isaiah xxxv. 7), "Grass with reeds and rushes" will grow in the pools which are to cover the parched ground. And all authorities concur in regarding the Papyrus as the only plant that could possibly fulfil the somewhat extended requirements of the Scripture references.

The manifold uses to which the Paper-reed was put among the ancients, strikingly confirm the Bible allusions. Boxes, baskets, sails, and sandals were all made out of this material by the Egyptians. Indeed, the Papyrus was as valuable in its way to

them as the bamboo to the Japanese, and the palm to the Pacific Islanders. It would, therefore, only be expected that the ark into which the Jewish legislator was placed when put into the river by his mother, should be formed of this useful water-reed. Theophrastus and Pliny both assert that it was used for making boats. And those who care for such confirmations of Holy Writ will note with interest in reference to Isaiah's statement (xviii. 1) about "the Land shadowing with wings which is beyond Ethiopia," sending ambassadors "in vessels of bulrushes upon the waters," that Bruce, the great African traveller, states that the Abyssinians—actually in the "land beyond Ethiopia"—to this day make their boats of the Paper-reed.

The succulent stem, the lower part of which is rather thicker in girth, was considered of old a table delicacy, something like our asparagus and globe artichoke. The Jews, like the Egyptians, stewed it in very hot pans, and epicures ate it with a thick and highly-seasoned sauce. For making paper the outer covering was peeled off, and the stems cut into thin slices in the direction of their length. These were laid upon flat boards, one close to the other. Another layer was placed on top of, and at right angles to them. A kind of glue or gum was then washed over the whole; pressure was applied, and the thick sheet was afterwards dried. It may be pointed out as interesting, that the ancient rulers of Egypt, see-

ing the demand for, and the utility of, the Papyrus was so great, made, after the fashion of modern times, a government monopoly of its growth and sale. Free trade, however, seems to have been the rule among the Jews, and the estimation in which this rush was held by them was second not even to that of Egypt. Once the identity of the Gomeh and Agmon is established, it will be found that the difficulties of the passages of Scripture in which the mistranslations "hook" and "cauldron" occur, readily disappear. There is no need, we venture to think, to go beyond the simple signification of the words. When in Job reference is made to putting a hook into the nose of Leviathan, the allusion is clearly to the weakness of the reed, and its inadequacy for the purpose named. The fact of the thorn, or prick, being introduced into the parallel member sentence, shows how unnecessary it was for the authors of the Anglican Version to go out of their way so far as they have undoubtedly gone in these two passages. And it is curious at the same time to note, that the only occasion on which they render a Hebrew word by paper-reed (Isaiah xix. 17), "The paper-reeds by the brooks," they are altogether wrong, and have not the slightest authority for the translation. The Hebrew in this case is "Aroth," which signifies—as the Jewish scholar Kimchi has pointed out—"green stuff" or "pot herbs," or, as the Vulgate renders it, "green herbage."

XIV.

THE DOVES-DUNG.

IN the narrative of the Book of Kings describing the siege of Samaria in the reign of Ahaz, King of Israel, the writer refers in the following graphic sentence to the straits to which the Israelites were reduced (2 Kings vi. 25), "And there was a great famine in Samaria; and behold they besieged it until an ass's head was sold for four score pieces of silver and the fourth part of a cab of doves-dung for five pieces of silver." The Hebrew word here translated Doves-Dung is "Hariyonim"; a compound actually signifying what the English rendering imports. By many, the expression has been taken in its literal significance. And there can be no doubt that it *may* mean what the word implies. Josephus, the Jewish historian, speaks of a besieged city being reduced to a like horrible and unnatural resource. Curiously enough, too, it is recorded in an old chronicle of England, that during a famine that prevailed in the year 1316, the poor were reduced to the necessity of feeding upon pigeon's dung, which they gathered and sold. The Rabbins, and the entire body of Jewish commentators, have taken the expression literally as it

stands in the passage above quoted; and as though to render unmistakable their views as to the signification of the word, they have added as a "K'ri," or marginal reading, the equivalent term "Debiyonim,'' because the term used in the text itself was regarded as an indecent expression, and one not proper to be read aloud.

As may be imagined, many authorities have endeavoured to demonstrate that it is not the excrement of the pigeon that is meant in the Book of Kings. And we venture to think, there can no longer be any doubt they are perfectly correct. Some plant or product of a plant must have been intended by the writer; and for the following reasons. There is no nourishment whatever contained in Doves-dung; and for the purpose of allaying the hunger craving, a pellet of clay would have been quite as effective and infinitely less expensive, since the former cost five pieces of silver. Again, before the residents of Samaria were reduced to the necessity of eating such unclean food as asses' heads, the doves that were there must, as a matter of certainty, long have been consumed. And yet again. we know that dovecots were invariably outside the limits of a city in Palestine; and as Samaria was closely invested by the Assyrians at the time when the famine was sore, it is simply impossible that the dung could have been obtainable under the circumstances.

Avicenna had long ago asserted that the word Hariyonim was applied to two distinct flowering-plants by the Arabs; and it has clearly been proved that Dioscorides identifies the plant designated among the Greeks Ornithogallon—"bird's milk"—with a well-known flowering-plant of Syria which bore an equally curious name. He identifies it, in fact, with the Ornithogallum Umbellatum of botanists, known popularly as the Star of Bethlehem; an extremely pretty little flowering-plant indigenous to Palestine. It is very small, bears a white or a red and spotted flower, and has a small, bulbous root. This root, it is affirmed, has always been an article of food in the East, and is largely consumed in times of famine and scarcity. It was dried, pounded, mixed with flour, and then baked. Sometimes the root was eaten raw or roasted on hot embers. In fact, it was treated much as chestnuts are nowadays, and had, it seems, much the same flavour. The Star of Bethlehem is still found in rank abundance in the vicinity of Samaria, the ancient Israelitish capital; and its pretty flowers may be gathered in handfuls in the neighbouring valleys and plains. The Star of Bethlehem may, therefore, easily have been the Doves-dung of the Bible. But one difficulty remains. Samaria was a thickly-built town, with few gardens. The flowers grew only outside the city; how then could the besieged residents obtain a supply of the roots? This fact alone

appears to be fatal to the claim put forward on behalf of this pretty floral claimant.

In our opinion the Hariyonim of the Israelites or Doves-dung of the Book of Kings is neither more nor less than the so-called "Chickpea"—as asserted by so able an authority as Bochart. This is a species of tare that grows wild throughout Palestine, and which is cultivated and gathered for edible purposes to this very day by the fellaheln of Syria. It produces, after flowering, in its little pods a small pea, having very much the *appearance* of Doves-dung. And—for this is the point to which we would direct special attention—in Arabic writings the words "kali" and "ugnan" signify both "Chickpea" and "Doves-dung." Here we have the identification. And nothing is more likely than that the very same thing was the case in Hebrew; and that the word Hariyonim signified both the excreta of the dove, as the word implies, and the Chickpea which was so called on account of its resembling the Doves-dung. Large quantities of these Chickpeas are sold nowadays to pilgrims and others on their way to Mecca. In Damascus there are many tradesmen whose sole occupation is preparing these very things for sale. They are parched in a large copper pan and then dried. They have always been esteemed as provision meet for a lengthy journey, and are a necessary part of the outfit of all who travel in the remoter parts of Syria and Asia Minor. This

identification simplifies matters very much. For we can quite understand how a considerable quantity of parched peas—possibly identical with the "Kali" of the Bible—was stored up in Samaria at the beginning of the siege; and that the duration of the investment was such that all things were consumed, and therefore the fourth part of a "cab" of Doves-dung—about half a pint of parched Chickpeas—should have fetched the enormous price of five silver pieces.

In connection with the flower known popularly as the Star of Bethlehem, and as we have before observed, supposed by some to be the Doves-dung itself, it may be mentioned that it is in great repute in the East as a charm among young women who are desirous of ascertaining whom they are destined to marry. The variegated flowers of the Chickpea serve the same purpose. Any Syrian damsel thus inquisitive gets up in the morning before sunrise, and while the dew is still upon the blossom plucks a single flower. This must be done in silence; nor must she mention aught of her intention beforehand to any of her friends. The petals of the flower, five in number, have then to be put in five different pieces of paper, and placed in her bosom, where they remain during the day. At night, before she retires to rest, the five little packets must be put in five different parts of the bed upon which she sleeps, and then, if the charm has been

worked properly, she will see her husband's face during the night. Some place the flower upon the doorstep over night, in the belief that the first man who crosses the threshold is the destined husband.

The Chickpea or Doves-dung is a very insignificant-looking plant, looking like a poor counterpart of the common sweet-pea. It trails along the ground, and flowers and pods just as the familiar sweet-pea of our country does. Occasionally the peasantry buy and grow it in their gardens, but as a rule they prefer to gather the pods as they grow wild.

XV.

THE BRAMBLE.

THE Bramble, like so many of our Bible Flowers, is only once named in the Anglican Version of the Scriptures. It is nevertheless sufficiently familiar to most readers of the Book. It is introduced with masterly effect in the parable of Jotham—the well-known parable of the trees seeking a ruler, in which the youngest son of Gideon so graphically denounces the unnatural conduct of Abimelech, and foretells the destruction of the men of Shechem and Milo, who had abetted the Judge in the slaughter of his seventy brothers, the sons of Jerubaal. "Then said the trees unto the bramble, Come thou and reign

over us. And the bramble said unto the trees, If in truth ye anoint me king over you, then come and put your trust in my shadow, and if not let fire come out of the bramble, and devour the cedars of Lebanon" (Judges ix. 14, 15). The word used in the original Hebrew is "'Atad," which the Targum or Chaldee paraphrase in its rendering of the passage repeats. This appears to be a flower or plant-name common to the whole block of Semitic tongues, from the ancient Phenician "Atadin" to the modern Arabic "Atad." And, throughout, the word appears to have retained its original signification, as applied to a prickly kind of plant belonging to the thorn species, and used largely for fuel. The Bramble would hardly be a Bible plant if commentators had not largely disputed its identity; and it is probably too much to expect that the critical gentlemen, who have discovered that the quails in the wilderness were flying fish, and that the Hyssop of King Solomon was the Æsop of Greek literature, should accept contentedly the rendering of the Anglican Bible. Instead of the Bramble, the Privet, the Buckthorn, the Cactus, the desert Astragal, and a small host of allied prickly-plants have been suggested; but really without either rhyme or reason.

There is no valid ground whatever for departing from the translation, which identifies the 'Atad of the Hebrew Scriptures with the Bramble—generally termed the Palestine Bramble. The word is again

used in the Hebrew of Psalm lviii. 9, "Before your pot can feel the brambles he shall take them away as with a whirlwind, both living and in his wrath." But in this passage, for some occult reason, the translators of King James's day, after their usual inconsistent fashion, preferred to render the word by the English word, Thorns. The plant itself is sufficiently familiar to all who have the least acquaintance with the Flora of their native land; for the Palestinean Bramble, the Bramble referred to in the parable of Jotham, is neither more nor less than the schoolboy's favourite, the blackberry-bush, as common in English lanes and country roads as in Europe generally. The Bramble grows luxuriously in Palestine, and is used, as in occidental countries, for the purpose of forming roadside hedges, sufficiently dense and thick and spiny to turn cattle, and sufficiently close and bushy and tall to shade vegetable beds, and prevent the too-rapid drying up of the ditches generally found on the inner side for irrigating the ground. In many parts where, neglected and uncared for, it is suffered to stray at its own sweet will, it acquires a trailing habit of growth, and forms, in out-of-the-way places, dense and impenetrable clumps, with spiny branches protruding in every direction, presenting a prickly, if not very formidable, barrier to the wayfarer and traveller. In spring, when covered with its fine, bright, green foliage, and a mass of beautiful pink and white blossoms, like those of the dog-rose, exhaling a faint

sweet odour, the Bramble is an extremely pretty object. In autumn, covered with its gleaming berries, it is by no means unpleasing. At other times, in the East, at all events, it is a most unsightly thing; and the modern Arabs show a wise appreciation of its value by using it for fuel, following, in this respect, the custom of their Jewish predecessors, who made use of sundry and all species of prickly plants, found in Judea—and these were legion—for the utilitarian if undignified business of pot-boiling.

As in all Eastern and hot countries, prickly and thorny plants like the Bramble abounded in Palestine, especially in the sandy and sterile portion of Judea, and in the rocky clefts and gorges of the Syrian mountain ranges. The Bible knows any number of them. We find them mentioned under various designations, which have been rendered in the Anglican translation, "Thorns," "Thistles," "Nettles," "Briars." It may be said that, one way and another, there are well-nigh as many plants of the briar and thorn kind referred to in the Scriptures as there are of flowers and flowering-plants.

Like the Bramble, these weeds have furnished similes innumerable to Hebrew writers; and in allegory they have been largely used by the prophets and inspired writers of the Old Testament, no less than by those of their successors to whom the agadic portion of Rabbinical literature is due. Many a moral has been hung, metaphorically speaking, upon the prickly

branches of the useless thorn. The thistle and thorn figure, for instance, in one of the most suggestive allegorical legends that have centred round the story of Adam's fall in Paradise. "When, after man's disobedience," so runs the story, Adam heard his doom pronounced, "thorns and thistles shall the earth bring forth to thee, and thou shalt eat of the herb of the field" (Genesis iii. 18), he appealed to his Maker. "Creator of the Universe," he said, "am I, who am a man, to be degraded now to the level of the brute? am I like the beasts of the field to find sustenance in the useless and spontaneous products of the earth?" Touched by the appeal, the Almighty added to his previous sentence the mitigating words which follow in the Bible narrative, "In the sweat of thy brow shalt thou eat thy bread." Labour should elevate man! And, the legend adds, Adam was content.

XVI.

THE STORAX.

ONE of the most conspicuous flowering plants of Carmel and Galilee is the so-called "Storax," known botanically as the "Styrax officinalis." Travellers passing through the glades of Carmel and the Galilean plains have invariably been attracted by this very beautiful perfumed shrub, which, like the Myrtle

and the Bay,—the "Ezrach" of the Bible,—appears to be indigenous to Palestine. Canon Tristram calls it "the predominant shrub of the district," and all who have seen it bear testimony to its charming appearance and delicious fragrance. It is a tall shrub, has a fairly erect stem, with smooth and grey coloured bark. Its leaves are single and ovate, the surface smooth, with a white film on the under side. Its blossoms are of a pure, waxen white, having yellow anthers, with rich golden pollen. They resemble exactly the flowers of the orange in colour, size, and perfume. Only in one respect is there a difference: the orange blossoms come singly among the leaves, whereas the Storax produces its blossoms in spikes of four and five. These appear early in spring, generally in March, according to the mildness or rigour of the season. And nothing, says Canon Tristram, can be more lovely than the Storax shrub, "covered with a sheet of pure white bloom," its perfume wafted through the dells and glades in which it delights to grow—while the Judas-tree, which always thrives in the same district, with its deep, rich red blossom, furnishes a glowing contrast.

This fragrant shrub, the Storax, is the "Nataf" of the Jewish Scriptures. The name comes from a root signifying a drop, or exudation, in which sense the word is used in the Book of Job (xxxvi. 27), "He maketh small the drops of water." The plant, or, more correctly speaking, its product—for both, so far

as we know, had but one designation—is only once mentioned in the Bible. It is included, in Exodus xxx. 34, among the ingredients of the holy incense, and is there rendered by the English equivalent "Stacte." "Take unto thee sweet spices, stacte, and onycha, and galbanum; sweet spices with pure frankincense: of each shall there be a like weight." This Stacte of the Authorised Version is the Nataf of the Hebrew, and the product of the Storax. It appears to have been so designated because it exudes in drops from the fragrant shrub. So, too, the Septuagint name "Stakte," derived from the verb "stazo," to flow. By metonymy the name of the product, most probably, was transferred to the tree—as was the case in so many other instances among the ancient Israelites. The gum or exudation is pale, translucent, and sticky, highly perfumed, and of an agreeable, if not very pronounced flavour. But it must not for a moment be confused or confounded with the Liquid Storax of commerce, which is the product of an altogether different Eastern tree. The Storax is still valued in the Holy Land on account of its mucilaginous exudation, and is carefully cultivated in the better class of gardens, where soil and climatic conditions are favourable. It is a very tender plant, and will not grow in cold or exposed places, nor in wet soil; hence it is never found in the higher mountain ranges of Palestine, though abundant on the lower hills, and on the warmer slopes of Mount Lebanon.

It thrives in Gilead, where its fragrance is strongly developed. The Syrians carefully gather the gum of the Storax, and esteem it as an emulcent in cases of throat complaint. It is a standing Eastern perfume, and forms the basis of a favourite Arabic toffee, compounded with sugar, flour, butter, and aromatics, baked in tins after the approved fashion of the nursery.

Although the Storax never attains to the dignity of a tree, travellers—and critics of the Bible text following them—have sometimes confounded it with the Poplar, owing to the pale, grey colour of its bark, from which, in Hebrew, the Poplar derives its designation "libneh"—not to be confused with "lebonah," frankincense. The Jewish writers, Saadia, Ibn, Ganach, and many others, take the "lebonah" or Poplar—Genesis xxx. 27, and Hosea iv. 15—for the Storax shrub, the "Styrax officinalis" that is; and the Septuagint follows this, but, as will easily be seen, without any justification whatever. The two plants are totally distinct and totally dissimilar.

The Talmud contains several references to the Storax plant and its product, of course in connection with the preparation of the holy incense for the Temple services. It is said, in Tractate Yoma, that the preparation of this incense was a secret confined to one family only in Jerusalem, the family Abtinas. They understood how so to compound the ingredients that the smoke rose steadily upward in a single column.

They refused, however, to reveal to any one the means by which the result was obtained.

The Jews, it is said, on one occasion sent for some Alexandrian apothecaries, who were skilled in the compounding of such preparations, but they were unable to ensure the same results—the rising of the smoke in a single column like a palm stem. The family Abtinas was much praised for one thing: none of the women of the family, whether wives or daughters, ever made use of perfumes, in order that it might not be said that they used for their own persons an ingredient of the holy incense. When any man belonging to the family married, it was always made an article of the marriage-contract, that the bride should abstain during life from the use of perfumes. It was, however, always a grievance with the leaders of the Jews that the members would not impart to any one their mode of preparing the incense; for, in later times, it appears to have placed the Temple authorities in a difficulty. The Abtinas received no payment for compounding the incense or furnishing the ingredients necessary. They afterwards became somehow or other impoverished, and were unable to prepare the powder. Subsequently, though, if the Talmudic account be reliable, the recipe was recovered by Rabbi Jochanan ben Nuri. He told Rabbi Akiba that it had been handed to him by an old man of the family of Abtinas, who explained to him, at the same time, that the reason why they had never parted

with the secret of the preparation before was, that they feared it might pass into the hands of irreligious people, and that which should honour the Creator of the World would, perhaps, be desecrated to the baser purposes of an idolatrous ritual.

There are a good many traditions among the Jews about the incense and its powers. It is said, too, that the smoke never was blown abroad by the wind, and that the smell, strong as it was, never caused injury to the most delicate female that attended the Temple service in the Court of Women.

XVII.

THE HYSSOP, OR CAPER-PLANT.

THE very mention of the Hyssop—the "Ezob" of the Hebrew writers—lands us in one of the hottest floral controversies that has ever raged among Bible critics and commentators. And as, in most cases of the kind when doctors disagree, the controversy has, in the main, been quite uncalled for. The plant referred to is by no means difficult to discover. The requirements of the Bible passages in which this trailing flower is mentioned, are sufficiently explicit to render the description applicable only to one or two of the wild-growing creepers found in Palestine and Egypt. The translation of the Septuagint is uniformly "Hysoppos"; and this ought to

go some way in settling the identity of the Ezob of the Jews. But there was always a suspicion that the phonetic resemblance of the two words had more to do with the rendering than an accurate knowledge of floral nomenclature on the part of the Alexandrian translators. Moreover, the Greeks were acquainted with two kinds of Hyssop, which were designated respectively Oreine and Kepente; and so, too, the Talmud appears to distinguish between a wild-growing variety and a species cultivated in the gardens of the Jews. As to the commentators, they seem altogether at sea in the matter. Mint, Marjoram, Rosemary, Thyme, Lavender, Rue, and even Maidenhair Fern, have all been put forward as the genuine Ezob, and their respective claims urged with a cheerful impartiality. Doctor Kitto claims to have found the Hyssop of the Bible in America! The Jewish scholar Ben Zeeb (who thinks the Lily the Rose, and the Rose almost anything but itself) holds that the Hyssop is only a species of moss; while the profoundly-learned Hitzig, on the strength of a certain phonic resemblance, finds a connection somehow between Æsop and Hyssop, and maintains that it was of the immortal Greek fabulist that King Solomon is said to have spoken in his Proverbs.

It is remarkable that, in the five or six passages of Scripture wherein the Ezob is mentioned, the cleansing properties of the plant are clearly indicated. In Exodus xii. 22, "And ye shall take a bunch of

Hyssop and dip it in the blood that is in the basin, and strike the lintel and the two side posts;" and also in Leviticus xiv. 52, "He shall cleanse the house with the blood of the bird, and with the running water, and with the living bird, and with the cedar wood, and with the Hyssop," there is a clear reference to the prophylactic properties with which the plant appears to have been generally credited among the Jews. Its use as an ingredient of the "water of separation" compounded with the ashes of the red heifer—Numbers xix. 6, "And the priest shall take cedar wood, and scarlet and Hyssop, and cast it into the midst of the burning of the heifer"—is further evidence of this. Psalm li. 7 is still more conclusive, "Purge me with Hyssop and I shall be clean, wash me and I shall be whiter than snow." So much for the qualities the plant should possess. The reference in the Book of Kings (iv. 33), to Solomon, "He spoke of trees from the Cedar-tree in Lebanon to the Hyssop that springeth out of the wall," tells us, in addition, something of the habit of the plant. And we gather from the verses before quoted, that it must also have been found in Egypt and in the wilderness of Sinai. Here we have something as to the locale of the plant. Further, the Ezob must have been a plant easily made into a bunch for facility of handling, must have possessed certain cleansing or detergent properties, and must have grown wild in the nooks of walls and in the crevices of rocks.

The only plant which complies in every essential particular with these conditions is the Caper-plant, the Capparis spinosa of botanists, the plant from which the favourite accompaniment of mutton, the pickled caper, is obtained. Its Arabic name is to this day "Asuf," and in Syrian, also, it retains its ancient designation, "Aszef." It is, in addition, identical with the Hyssop of the Septuagint. So that tradition and philology alike favour the identification here insisted upon. The Caper is also common to Egypt, Syria, and the Sinaitic peninsula, being found in rocky situations and mountain clefts—in this particular again complying with the requirements of the Ezob of the Bible. And, to clench the matter, it may be added that the Hyssop of the Greeks, the Capparis spinosa, was in olden times commonly credited with anti-scorbutic properties. Pliny says it was actually "used in certain diseases resembling leprosy." Taken in conjunction with the peculiar ordinance of the Book of Numbers, this noteworthy statement may be taken as furnishing the only additional evidence needed to establish satisfactorily the identity.

The Caper is a small but conspicuous-looking plant, of a trailing habit, having a single stem, with oval, glossy, green leaves at regular intervals. Just below the junction of each leaf are a couple of short recurved spines—whence the name spinosa—strong and prickly. Its flower is of a pure white, the petals

are open and loose, and from the centre spring up a number of purple or lilac-coloured filaments, tipped with golden yellow, and a single green stamen in the midst of them. The fruit which succeeds the white blossom is about the size of a walnut, and is gathered and pickled by the Palestinian peasantry. The capers which form an accompaniment to the mutton of modern epicures, are not the fruit but the immature buds of the Caper, gathered while full of sap and strength, and preserved in vinegar. The plant is found almost everywhere throughout the Holy Land in dry situations, where it thrives best, in the gorges of the river Kidron, in the district between Mar Saba and the Dead Sea, and festooning the Haram Wall of Jerusalem itself. Even in Northern Africa it strikes the traveller, who finds it growing on inaccessible cliffs, and in situations where it seems impossible for it ever to draw moisture or nourishment. The caper-berry is also once referred to in the Bible in Ecclesiastes. In xii. 5, where the Anglican translation reads "desire shall fail," the original has the "caper-berry shall fail"—the Hebrew designation being "Abriyonah." It was in favour with ancient Jewish epicures as an appetiser provoking hunger and thirst.

The Talmud knows no less than five kinds of caper. Maimonides says that the special kind referred to in the Law is the edible variety. The Caper is known among Talmudists as Kafrisin, an extract from

which, the wine of Kafrisin, was an essential ingredient of the frankincense, according to Tractate Kerituth of the Talmud. The plant appears to have been termed Zelaf, from "Zalaf," having reference, perhaps, to its prickly nature. Talmud, Tractate Beza, notes this quality of the Hyssop in comparing Israel with it. "As the Caper among the plants is invincible, so is Israel among the nations." The value of the Caper as a condiment is often referred to; in which respect Rabbi Gamaliel says the Caper Plant can claim that it produces fruit every day, inasmuch as its preserved buds and fruit are at all times ready for the table.

It has been objected to the Caper, that its prickles would prevent its being handled for sprinkling purposes, as commanded in Exodus and Leviticus. But the very reverse is the case. The firmness of the stems and the presence of the spines would prevent the clogging of a rapidly coagulating substance like blood, and add to the facility of bunching. There is no other plant extant which is better adapted for sprinkling purposes—such as the Bible account specifies—than the Capparis spinosa or trailing Caper, of Palestine and Northern Egypt.

XVIII.

THE TRAILING BOTTLE-GOURD.

AMONG the trailing or climbing plants of the Holy Land none is more useful than the Gourd family. In the neighbourhood of Sidon and throughout Northern Palestine generally, the traveller will, during the summer season, come across any number of them. Here and there he will see, as he journeys on, arbours or lightly-built tabernacles, in which the residents take refuge from the heat of the sun. They invariably present the appearance of a mass of foliage, due to the trellis-work, of which they are constructed, being completely covered by some species of quick-growing climber, and a closer examination of the plant selected for this purpose will show it in most cases to be the trailing Bottle-gourd—a climbing plant, known to botanists by the scientific designation, cucurbita pepo. It is an extremely rapid-growing annual, belonging to the cucumber and melon-producing family, with fine, full, deep green leaves in early spring, ere the glowing heat of the Eastern sun has power to dry its sap and dull its foliage. So rapid, indeed, is its growth during this season, that single shoots are said frequently to gain one to two feet in the course of a day. It is both a trailing and a

climbing plant. It flowers late in spring and early in summer, producing a number of yellow blossoms, which form at almost regular intervals. These are succeeded by a large pumpkin-like fruit, or, as it is called, Gourd, in shape somewhat resembling a bottle, from which it receives the popular designation Bottle-gourd. This, however, is not the Eastern name of the climber, for the Arabs term it simply "el kura," that is, the gourd. This favourite climber, the Bottle-gourd, is the "Kikayon" of the Hebrews; the miraculous gourd of the Prophet Jonah, which "came up in a night, and withered in a night," which shaded Jonah's little arbour when he returned from his denunciation of the Ninevites, and the withering of which furnished so effective an argument against the vain imaginings of the Seer's heart, when he found his prophetic utterances as to the destruction of Nineveh annulled by reason of her repentance.

This Kikayon or Gourd has been the cause of one of the fiercest controversies that ever raged in the early Christian Church; and those who affect to believe that hair-splitting disquisitions on unimportant Bible topics are peculiar to the rabbins of the Talmudic schools will find a good deal to upset their views in the Church discussion about Jonah's marvellous gourd. It fills more volumes than comprise the entire Talmud. The famous argument between the Rabbins Joshuah and Rab, in Babylon,

as to the using of a certain lock on the Sabbath, is nowhere by the side of the Patristic controversy about the Kikayon of the Bible, and just as the Fathers of the Synagogue excommunicated one of their leaders for holding a certain shaped oven to be impure, so did the Fathers of the Church damn as heretical those who held unauthorised views as to the nature of Jonah's gourd. It was generally held, in former times, to be identical with the so-called Palma Christi, better known as the Castor Oil Plant, a shrub found everywhere in the Holy Land, and growing to a height of ten and fifteen feet. The Septuagint identifies it with the Kolokunthe; and the Vulgate translates it by Hedera or Ivy. The Palma Christi is the plant from the seeds of which the too familiar Castor Oil of the druggist is obtained. This oil has been supposed to be identical with the Oil of Kik of the Talmud; the "Kik" of the Gemara being regarded as the equivalent of the "Kikayon" of the Book of Jonah, and the "Kik" of the Ancient Egyptians. Rish Lakish actually says it is the Gourd of Jonah, about which Rabbi Bar Bar Chanah indulges in some very extraordinary and far-fetched stories.

We decline for a moment to accept the identity here suggested, Lady Calcott's remarkable argument notwithstanding. This authoress says, "The Jews of London use this oil by the name of 'oil of kik' for the preparation of the Sabbath lamps, it being one of the five kinds of oil tradition allows

them to use for that purpose." We should not hesitate to affirm that the Jews of London, so far from using oil of kik, do not even know what it is. Truth is, this good lady had been reading a translation of the section of the Talmud included in the Prayer Book and known as "Bameh Madlikin," from its commencing with the words, "With what may one light the Sabbath lamp;" and because the "kik" there mentioned has been identified with the Palma Christi, she at once jumped to the conclusion that the Jews used castor oil for burning in their Sabbath lamps. After such a fashion is learning manufactured in our days.

The Talmud and the Rabbins generally are answerable, to a certain extent, for the mistake which identifies the Kikayon of the Jewish Scriptures with the Castor Oil Plant, or Palma Christi of the ancients. How strong a hold this tradition obtained, in mediæval times, is evident from the circumstance that, though the Anglican translators of the Bible correctly render the Hebrew plant referred to in the Book of Jonah (iv. 6) by the English equivalent gourd—"And the Lord God prepared a gourd and made it to come up over Jonah, that it might be a shadow over his head to deliver him from his grief," yet they take care to indicate in the margin the alternative translation "Palmerist." The mistake has been further perpetuated owing to the confusion of two, distinct, Arabic plant-names, by people imper-

fectly acquainted with that language. The Arabs vulgarly term the Castor Oil Plant "Khurwa," and the gourd "Kura." In conversation it requires a nice ear—certainly one accustomed to discriminate clearly the guttural sounds of the Arabic—to catch the distinction. Hence travellers and botanists have easily confounded the two; and hence the confusion in the rendering of the Hebrew word.

Tradition, however, surviving among the Jews and non-Jews, about Mosul, has preserved the distinction; for they say that the plant which shaded Jonah was not "el kurwa," the Castor Oil Plant, but "el kura," the Gourd. Apart from this the Palma Christi is not a climbing plant which could be grown in such a way as to cover an arbour with its trailing and pendent foliage. It is an upright-growing shrub —almost a tree; and not one that could be trained over a tabernacle. Now it is expressly stated that Jonah (iv. 25) "went out of the city, and sat on the east side of the city, and there made him a booth and sat under it in the shadow," and this booth was miraculously covered with the plant Kikayon in the course of a single night. This puts the Castor Oil Plant out of court at once. While tradition, on the very spot where the Prophet made his booth, and the uses to which the plant is to this very day applied in the northern parts of Palestine, concur in fixing upon the Trailing Bottle-Gourd of the country as the Gourd of Jonah, and the Kikayon of the Hebrew Bible.

XIX.

THE SWEET FLAG, OR SCENTED CALAMUS.

THE Common Sweet Flag is the type of a whole class of Bible plants. It is a well-known water reed, which may be found in abundance in sedgy pools and reedy marshes, fringing the banks of damp-lying ditches and stagnant ponds, and is one of the most familiar of our British flora. It is said to be indigenous to Great Britain, and is considered to be a representative of the so-called "Sweet Cane" of the Scriptures, referred to variously as "Keneh tob," the "good cane"; "Keneh bosem," the "spice cane"; and alone "Kaneh," "the reed" or "cane." The aromatic plant so designated in Hebrew is, without any doubt, the well-known and much-esteemed Calamus,—the Sweet-Scented Calamus of the Easterns, in high repute among them for more than three thousand years, on account of its agreeable odour and the essential oil distilled from it. There are a goodly number of references to this favourite reed in the pages of Holy Writ. In Exodus xxx. 23, the priestly code includes it among the ingredients of the holy anointing oil, sacred to Aaron and his sons. "Take thee of pure myrrh, sweet cinnamon, sweet calamus, and cassia two hundred and fifty shekels." Readers of the original will note that the

Hebrew adds the word "besem" to "Kinmon," Cinnamon, as well as to "Kaneh," the Cane.

The three great Prophets of Israel all have allusions to the Sweet Cane so highly prized by the Jews. Isaiah, reproaching the Israelites for their indifference to their faith, and their consequent disregard of the Temple ritual and its needs, says (xliii. 24), "Thou hast bought me no sweet cane for money." Jeremiah, inveighing against the empty ceremonialism of his co-religionists, asks (vi. 20), "To what purpose cometh there incense to me from Sheba, and sweet cane from a far country?" Ezekiel includes the sweet cane among the merchandise of the Phenician traffickers (xxvii. 19), "Cassia and the reed were in thy markets." In the Song of Solomon the "Kaneh" or Calamus is named (iv. 14) among the aromatic plants that grow in an Eastern "Pardes" or flower garden—"Spikenard and saffron, cane and cinnamon, with all trees of frankincense."

Our common Water-Flag is a very fair representative, in its way, of the Scented Calamus which was known to the ancient Jews. It is abundant in the rivers and streams of modern Palestine. It has a most agreeable odour, strongest, however, in the root which, in England, and on the Continent generally, is carefully cut off, dried, and used to fill scent bags for placing among linen and clothing. It is, by the way, a good preservative against moths. The aromatic principle is an essential oil which can

be extracted by distillation; and this forms one of the most valuable preparations of the Pharmacopœia, though not so frequently prescribed by our medical men as in the opinion of certain botanical experts it should be. Though the plant grows abundantly in England, roots and preparations therefrom, which are in general demand, are still obtained from the East, and principally from the Levant.

The Oriental varieties of the Calamus are, as might be expected, more fragrant and odoriferous than our indigenous kinds. They yield a larger quantity as well as a better quality of oil. Hence the greater esteem in which they are held. Large quantities are grown in Egypt and in Syria to this day, though the best and dearest comes from Arabia. Canon Tristram—whose authority, as a rule, is unimpeachable—seems certainly to be wrong in his opinion, based on certain of the Bible references which speak of the fragrant cane as coming "from a far country," that the Calamus was obtained only from foreign countries, and that no aromatic reeds have been found in Syria. Theophrastus explicitly states that the Calamus "grew plentifully in the marshy parts of a lake which slumbered in a plain near Mount Lebanon; and that the fragrance of it was immediately perceived by those who entered the plain." This would unmistakably prove that the Scented Calamus was—as we should expect—common enough in ancient Palestine.

And more. Polybius confirms this report, saying that "Antiochus marched from Laodicea with all his army, and, having passed the desert, entered a close and narrow valley which lies between Libanus and Anti-Libanus, and is called the Vale of Marsyas. The narrowest part of the valley is entered by a lake with marshy ground, from whence are gathered aromatic reeds." And the Rev. Robert Tyas says that "reeds are still found in the same locality." To this we can add our own personal experience. The Calamus is plentiful in certain parts of Syria.

That the far East, whether Arabia Felix or India —the latter, we are of opinion—produced a finer kind of Calamus, and therefore a more highly valued aromatic preparation and unguent, is only what we should expect. That this again was imported by the trading caravans, and purchased by the Jews, is evident from the reproach of Jeremiah we have above quoted. And this was, no doubt, the "Kene hatob" or "good cane from a far country," of which the Prophet is for the moment thinking. And this Indian variety of the Scented Calamus has been identified by Professor Royle as the "Andropogon Calamus Aromaticus." It is found in Central India extending north as far as Delhi, and south to between Godavery and Nagpore. It appears to be popularly known by the name Spear-grass. As India supplied undoubtedly the Nard of the Bible, the "Neradim" of the Song of Solomon, the Spikenard of the Angli-

can Version, and the Ermine-Tail of Arabian and Indian popular botany, it is quite in accordance with the facts of Bible Flower Lore that the "Scented Cane from a Far Country" should have been the familiar Spear-grass of the modern Indians.

XX.

THE GALBANUM, OR SYRIAN FERULA.

THE Ferula or Giant Fennel is another of those Scriptural plants of which the product only is mentioned in the Bible. But it is among the most notable of its kind. The Syrian Ferula, known among botanists as the Galbanum officinalis, is the Eastern flowering-plant which produces the Galbanum of the sacred Scriptures, the "Helbena" of the original Hebrew. This word occurs only once in the whole of the Bible. It is mentioned in Exodus (xxx. 34), along with three other aromatic substances, as an ingredient of the holy incense: "Take unto thee sweet spices, stacte, onycha, and galbanum, these sweet spices with pure frankincense, of each shall be an equal weight; and thou shalt make it a perfume, a confection after the art of the apothecary, tempered together, pure and holy." The term is correctly rendered in the Anglican Version of the Scriptures, and indeed is one of

those botanical designations, few and far between, about which Bible critics and commentators have discovered nothing to give rise to controversy. The substance itself, like the plant that produces it, is neither sweet smelling nor agreeable. In point of fact, it is quite the reverse. The Syrian Ferule is, in short, an abominably ill-smelling, a vilely malodorous plant. And though scientifically designated "Ferula Galbanifera," or Galbanum-bearing Cane, it is vulgarly and not at all inappropriately spoken of as the Stinkwort. The coarser desert-dwellers go so far as to call it by an Arabic name meaning Satan's excrement. So much for the nature of the Galbanum.

Of course, it is contrary to all expectation to find such a product, malodorous and disagreeable, included as an essential ingredient in the preparation of the sweet-smelling incense destined for use in the Tabernacle. But then it may be noted that the Galbanum was not added on account of its fragrance or aromatic properties. It was included in the compound for the very reason of its being so objectionable. Insects of all kinds are repelled by the odour, or more correctly speaking by the disagreeable odour of the gum, and it acted as a preservative. Hence the why and the wherefore of its addition to the incense; it kept off vermin, and strengthened the compound by preventing the loss of aromatic properties.

It is not at all surprising that the Syrian Ferula or Galbanum-plant is one of the most disagreeable

smelling extant. It belongs to the family Umbellifera, and is included in that unattractive sub-division which has the noisome Assafœtida at one end, and the ill-odoured Fennel at the other. It is a small, perennial, flowering-plant, sending up straight, cane-like shoots. The stem is smooth and shining. It has small, dark-coloured leaflets, ovate, and wedge-shaped, while the edges are sharply serrated. The flowers are few and insignificant, and it is only valued for its product. The whole of the plant is full of a thick, viscid, milky juice, which occasionally exudes from the joints of old plants. But it is preferably obtained by cutting the stems across a short distance above the roots. The milky juice then rapidly flows and hardens, and constitutes the gum Galbanum of the Scriptures. It looks like a conglomeration of clear, white tears, each of which can be pulled apart from its fellow. It has a very disagreeable, bitter, acrid taste, and a very strong and nauseous smell. It is about as hard as wax, can be softened by heat, but becomes brittle on exposure to cold. Galbanum is soluble in water, which it renders thick and milky, and a very powerful essential oil can be distilled from it. Like most foul-smelling and nasty-tasting substances, it has, in all ages, been in good repute as a medicine, and has, even in our days, a recognised place in the medical pharmacopœias.

In ancient times the Galbanum was supposed to be particularly agreeable to evil spirits, demons and

sprites and imps generally, and the plant was held to be effective in keeping off snakes and vermin. Virgil in his third Georgic speaks of the Galbanifera as driving away the snakes from the stables near which it grew. But its unpleasant odour is sufficient to account for this, without crediting the plant with any mysterious or inexplicable powers. The modern inhabitants of Palestine firmly adhere to the belief, inherited from ages, in the mystic powers—if one may so term them—of the Syrian Giant Fennel, and its product.

The Talmud has a good many references to the Galbanum, some of them sufficiently far-fetched and mystic. Infected with notions of Masdeism and its hordes of evil spirits, some of the Rabbins saw in the power which plant and product possessed of repelling insects, signs of a kind of magic influence over unclean creatures, the emanations of Ahriman. Hence they prescribe, as a preventative against vermin and other evils, that men should anoint themselves with the gum. No snake, for instance, would ever bite a person so anointed, and no evil spirit would ever venture nigh him, by no means an unimportant consideration in days when it was vulgarly believed that "incubi" and "succubi" were on visiting terms with humanity, and were the cause of most of the mischances, and nearly all the physical ills that afflicted mankind. The Galbanum plays still an important part in the mystic medicine-mongering of

the illiterate East. In cases of obstinate fevers, which fail to yield to the ordinary remedies of the native Hakim, or the medical formulæ of some reputed Spirit, recourse is had to an old-world ceremony to exorcise the demon or evil spirit to whose presence the disease is, of course, attributable. The sufferer is put in a room where there is no other furniture but the bed upon which he or she is laid. Towards night every member of the patient's family leaves the house, and an old woman, well posted in the details of the proceedings, takes her place by the bedside.

About midnight, she takes six eggs, some flour and water, and, without speaking, mixes the flour and water, adding two of the eggs, and makes of the dough four small cakes. One of these is placed in each corner of the room, going round from right to left. And then returning from left to right, the performer breaks the four remaining eggs, each in one corner as she passes round. Then she puts in a small pan a portion of pounded Galbanum; this is ignited, filling the room with a pungent, disagreeable odour that nearly chokes the patient. While the gum is burning, the old woman goes to each corner in succession, and pointing first to the cake upon the floor and then to the bed, says, "This for thee, and that for me; this be thine, and that mine be." The idea, of course, is that the demon will be attracted by the cakes in the corner, provided for his

especial delectation, and will leave the patient, whom he is consuming, to regale upon them; and then the fumes of the Galbanum will compel him to leave the vicinity, and the sick person will thereupon recover. The efficacy of the charm naturally depends upon the condition of the patient. If he recover, of course the "charm" is credited with the cure; if not, why, equally of course, the charm is in no wise to blame.

This sort of mystic medicine-mongering is by no means confined to Mohammedans in Eastern countries. The Palestinian Jews have a performance known as the "Andalko," in which, among other ingredients, the Galbanum known to their ancestors plays an important part.

XXI.

THE SODOM-APPLE, OR COLOCYNTH.

THE so-called Sodom-Apple—the Dead Sea Fruit of the vulgar—is as well known by name as the Rose of Sharon. But few who read of it or speak of it, have any idea of the plant so designated in the Bible. It is referred to in the Scriptures as the "Gefen S'dom," or Sodom-Vine, which, according to our singers, grew "near that bituminous lake where Sodom stood." Its fruit, "dead sea fruit that tempts

the eye, but turns to ashes on the lips," has been the theme for centuries of legend and popular tradition. It has been said, by competent scholars, that the reference to the Sodom Vine, in the passage where it is mentioned—Deut. xxxii. 32—"for their grape is of the Vine of Sodom," need not be taken literally, and is merely a figure of speech. But a figure of speech must have a concrete backing, so to speak, and, unless the plants growing in the vicinity of the buried Cities of the Plain had possessed certain hurtful or noxious properties, the simile would have lacked point altogether; or rather, the simile would neither have been used by the writer nor understood by the reader. Besides, tradition—and in the East tradition always embodies or adumbrates facts—has settled the matter pretty conclusively.

The Sodom-Apple, or "ampelos sodomorum," was evidently not unknown to the Greeks; and the Latins have many references to the "Vinea Sodomorum," or Sodom Vine. Josephus, in his Jewish Wars (ch. iv. 8), speaks of the once happy land, which, for its wickedness, was destroyed by fire and converted into an unwholesome region, where the fruits produced furnished evidence of the conflagration that wrought its ruin. For though they resembled ordinary edible fruit in colour and appearance, yet on being plucked by the hand they dissolve in smoke and ashes. This is evidently the origin of our popular belief anent Dead Sea Fruit. Tacitus, probably, had this passage

of the Jewish historian in his eye when he related the same thing in his History (v. 6). Modern travellers, after the fashion of their kind, have drawn a little upon their imagination when describing the plants that grow in the region of the Dead Sea. But, substantially, it may be said that the vine, or trailing plant, which produces the Sodom-Apple, fully justifies what has been asserted of its nauseous and noxious qualities, and fulfils all the conditions required to make the reference of the Deuteronomist apt, fit, and intelligible.

Of course, there have been the inevitable controversies as to the identity of this Sodom Vine upon which the Sodom-Apples grew. And one of the many botanical authorities on the flora of the Bible actually suggested that diseased oak-apples were probably intended by the writer of Deuteronomy. For a long time, too, it was supposed that the plant, known among the Arabs as the "Osher," was the Sodom-Apple of the Jews. This—the Calotropis procera of botanists—is found on the shores of the Dead Sea, growing to a fair size, producing clusters of flowers, which give place in autumn to a smooth-skinned, round fruit, about the size of an orange, which hang three and four together. The leaves and stalks, if broken or pressed, yield a white, milky substance, acrid and poisonous. The fruit is fair to the eye, of a beautiful yellow and gold, and soft to the touch. It must, however, be handled very carefully, for a touch,

and it explodes with a puff, emitting a fine, thin dust. If left till winter, these apples are found to contain a yellowish ashen dust, really a fungoid growth, bitter and pungent. Inside it is a fine, soft, silky substance most beautiful and glossy, which is so strongly impregnated with sulphur, that the Arabs collect it and twist it into matchlocks for their rifles. One circumstance, however, proved fatal to the claim of this Osher to be considered the Vine of Sodom. It is not a vine at all. It is not a climbing plant nor a trailing plant, such as the Hebrew term "gefen" would be applied to. It cannot, therefore, be regarded as the true Vine of Sodom, whose fruit is the Sodom-Apple of popular tradition.

The plant intended in the Scriptures appears really to have been the Colocynth, or Coloquintida —scientifically termed the Cucumis colocynthis. This is a true vine, trailing, as the vine-family do, clinging in its habit of growth, with the leaves and tendrils that characterise the vine-tribe generally. It grows in rank abundance near the site of the submerged Cities of the Plain, and in every respect is such as the reference of the Deuteronomist would lead one to infer. Travellers represent it as covering the ground for miles and miles around, trailing over the dusty ground, its masses of leaves and tendrils trodden under foot by horse and camel of passing caravans. It is a tall annual, attaining frequently a height of ten feet, sometimes even more. Its leaves

are triangular, of a fine, light green, notched and hairy, and rough to the touch. The flowers, which appear in spring, are small, yellow, and solitary, appearing at intervals on the stem, at regular distances apart. The blossom, which is far from striking, grows at the top of a hairy little capsule. As the petals drop off, this becomes larger and larger, forming at last a fruit, the size and colour of a small orange. These are the so-called Sodom-Apples of popular tradition. When dry, or when pressed by the hand, they explode with a crackling noise like the pop of an air-gun, discharging a fine, light powder, resembling the ash of a cigar, bitter to the taste, and extremely nauseous. This is the Colocynth of the druggist, a useful but dangerous medicine. There was a variety of this Colocynth plant, which produced a much smaller kind of fruit, about the size of a cherry; and there is every probability that this species of the Cucumis colocynthis was the plant that suggested the simile, "Their Vine is of the grape of Sodom," which is used with such effect in Deuteronomy, and which should therefore be regarded as the true Vine of Sodom.

The Wild Gourds of the Scripture (2 Kings iv. 39) are no doubt only a variety of the Colocynth fruit. The Bible narrative describes how one of the sons of the prophets "went out into the field to gather herbs, and found a wild vine, and gathered thereof wild gourds his lapful." The original word here is

"Pakuoth," rightly rendered "gourds." And it will be noted that the plant which produced the poisonous growth that led to the cry that there was "death in the pot," is actually said in the text to have been as the Hebrew literally has it, a "Vine of the Field."

XXII.

THE DESERT ASTRAGAL.

IN the Authorised Version of the Scriptures there is no mention made of the Astragal or Tragacanth. But among the articles of merchandise carried by the Ishmaelite trading caravans going down into Egypt, and referred to in Genesis (xxxvii. 23), the reader of the Anglican Bible will find, somewhat vaguely mentioned, "spicery." The original word of the Hebrew text is "nechoth." This term occurs also in the forty-third chapter of the same book, where it is specifically included among the most esteemed products of Southern Palestine or Western Arabia, which Jacob desired his sons to carry down with them as a propitiatory offering to Joseph, the unknown governor of Egypt. Here, too, the authorised translation of the Scriptures gives us as the English equivalent "spices." That the rendering is, in both cases, wrong goes almost without saying; for it is evident, in either passage, that the Hebrew is used in a

specific and not in a general sense, and refers to the particular product of some one particular variety of plants, and not to an entire class of odoriferous preparations. In point of fact, the word does not mean spices at all, and has no reference whatever to any spices or spicery, as the term is generally understood. It designates a resinous substance—like the "Lot," or product of the Rock-Rose or Flowering Cistus, with which it is connected in the passage before referred to—a species of gummy exudation, derived from a small, flowering shrub which, according to the wording of the Hebrew, must have been indigenous to the country.

The exudation, in this case, is that familiarly known, in our days, as the gum tragacanth of commerce; and the plant from which it was obtained, the nechoth of the Bible, is the Desert Astragal, or Wild Tragacanth, vulgarly termed the Thorny Astragal, about as formidable a little shrub in its way, despite its blossom and product, as one would care to come across. The product referred to by the Patriarch Jacob in Genesis, it should be noted, is identical with the "Nochtah," mentioned in the Book of Kings (2 Kings xxv. 13). Hezekiah, King of Judah, had, according to the story here recorded, stored large quantities of the precious gum in his treasure houses and showed it to the Babylonian ambassadors, as is also related by the Prophet Isaiah (xxxix. 2). In both these passages too the Hebrew word is in-

correctly rendered "spices" in the ordinary version of the Scriptures.

The Wild Tragacanth, or Desert Astragal, is one of the most characteristic of the flowering plants of Palestine. It is indigenous to the country, grows everywhere, and thrives as well in the driest of Southern sands as in the moister uplands of the North. It has no predilections in the matter of soil, moisture, or site. It thrives wherever the roots get foothold. It is found on the shores of the Dead Sea, seventeen hundred feet below the sea level, and on the top of Mount Hermon, at an elevation of more than two thousand feet. And there are more than twenty varieties of it—Canon Tristram collected fifteen —ranging from the lowly, dwarfed plant, two feet in height, a compact mass of formidable spikes, to the fairly erect shrub, taller than the tallest of men, stiff and barbed, capable of turning alike the careless traveller and the imprudent beast. The principal variety is known among botanists as the Astragalus tragacanthus; but all the species resemble each other in manner of growth and mode of flowering, in the power of their spines and in their resinous product.

The Desert Astragal may be briefly described as a dwarf, woody, flowering shrub, with long, pinnate leaves. These leaves always terminate in a mid rib extension, strong and prickly. Over the whole plant is a "dense fence" of long and formidable thorns,

sticking out in every direction, outwards, that is to to say, presenting to the observer a solid mass of pointed and spiny prongs, sharp as a needle and strong as steel. Well protected among the forest of spines with which the plant is embellished, the blossoms show here and there a pale yellow. These flowers are not unlike those of the wild pea; and, in some species of the Wild Tragacanth, are purple or white. The gum—gum tragacanth, as it is commercially named—is not obtained by incision; nor does it flow from accidental crevices in the stem or branch. It exudes from the whole surface of the shrub, from the leaves, from the long pointed thorns, from the ends of the twigs and the wooden stem. The plant in fact sweats, and the sweaty exudation is the gum, esteemed from ancient times as a precious product—so we learn from Genesis. There is this peculiarity too about the exudation; it only flows during sunshine, the heat apparently being essential to its production. It is gathered like the product of the Rock-Rose by rubbing gently all over the plant with a ball of cotton or a soft rag, when the gum gathers in lumps. In some parts the stem of the Astragal is punctured; and as soon as the heat of the sun penetrates the wound, the exudation begins to run. But this mode of obtaining tragacanth is not generally followed. The plant, it is worth noting, retains to this day among the Arabs its ancient Jewish designation, "nekaa," familiar to us from the

"Nechoth" of Hebrew Bible. One of many instances of the fidelity with which the old Semitic plant-names are preserved by the conservative inhabitants of Syria.

The Astragal or Tragacanth is probably the plant referred to in the Mishna—Aboda Zara—under the curious and far from satisfactory designation "turnita." This is probably a misreading for "targanta," the "gimel" having dropped out, since there appears to be little doubt that the small woody Tragacanth of Palestine is here meant. We have no doubt whatever about it, and consider, moreover, that the injunction forbidding a heathen to deal in a substance designated "Istrubla" was designed to prevent any person rendering ceremonially unclean the product of the so-called "Schita," which was in general request among the Jews of old. A curious custom in which the Tragacanth played a part was in vogue among the ancient Hebrews. According to Tractate Rosh-Hashanah, it was customary always upon the birth of a son to plant an Acacia tree—the tree from which the shittim-wood of Scripture was obtained, and upon the birth of a daughter to plant a specimen of the Desert Astragal—the "Nechoth" of the Hebrew Scriptures. This does not appear to have been done on account of any superstition current about the shrub, but solely from mercenary considerations. The product of both plants was extremely valuable and

fetched a high price; and by the time a son or daughter was marriageable, the Acacia was fit for felling and the Tragacanth in full yield. In this way a sum of money was readily obtained to either start the young man in business or give a nice dower to the girl.

XXIII.

THE SPIKENARD, OR INDIAN ERMINE-TAIL.

THE Hebrew word "Nard" is one of the very few botanical terms occurring in Sacred Scriptures, the signification of which has always been beyond any doubt; and this is the stranger when we remember that it is not a Semitic plant-name at all, but was imported, with the thing it designates, from the further Indies. It is mentioned three times in the Song of Solomon; twice in the singular form, and once in the plural "Neradim." The Anglican Version of the Bible translates it, in all three places, "Spikenard," indicating the far-famed perfume of the East, which Solomon extols (Cant. i. 12), "While the King sitteth at his table my spikenard sendeth forth the smell thereof." This was apparently the most highly valued of the many odorous products known to the ancient world. The substance is also referred to in two well-known passages in the New Testament—in

the Gospel of Mark and John—where it is designated by the Greek equivalent "Nard," identical, of course, with the Hebrew. Classical scholars will remember that Horace promises Virgil a whole amphora of wine in return for a small onyx-box of Spikenard. Originally imported from India, this precious substance was as well-known in the various countries lying between the Himalaya Mountains and the Pyrenees, as it was costly and esteemed. And in every land, it may be added, it appears to have retained the ancient designation by which it became known through the trading caravans that brought it into occidental states.

Used in the singular, Nard, as in the passages of the Song of Solomon which we have before quoted, the word denotes the perfume or odorous substance; but when it is found in the plural, Neradim, as in chap. iv. 13, "Thy plants are camphire, with spikenard," it certainly denotes the plant that produces the perfume, as is the case with the Henna or Camphire. This appears almost evident from the verse in which it is found, and still more so from its being coupled with a like form, "Kepharim," in "the Nards with the Henna-plants." That exotics were largely cultivated in Palestine by the ancient Jews is an established fact. And it may, in support of this, be pointed out that Dioscorides actually asserts that there were two kinds of Nard, the one Syrian, the other Indian. Of course, the plant could not have been common,

but certainly a Pardes, or garden, such as the Song of Solomon refers to—which would correspond to a sub-tropical garden in our colder Western lands —would not be deficient in a flowering-plant so highly esteemed and so rare. Nor would the cultivation of the exotic Nard, in the gardens of the wealthy, in any way tend to diminish the value of the imported product.

But, though the Nard or Spikenard has been known from the most ancient times, it is only in very recent days that the flowering-plant which produces it has been discovered and identified. The difficulty of ascertaining which of the Eastern plants still existing was the Nard of the Scriptures, was naturally enhanced by the fact that it is no longer cultivated in Palestine, and had therefore to be sought among the flora of Eastern Persia and Western Hindostan. But a curious circumstance helped to further the identification. The Arabs popularly call the Nard the Ermine-tail, from some resemblance, of course, of the plant to the caudal appendage of this furry creature. The scientific name given to it by the Persian dealers and writers was known to be Sunbul Hindi; and when Sir William Jones, a few years ago, showed that the Sunbul Hindi of the Arabo-Persian authors was the Jatamansi of the modern Hindoos, a first step was made towards the identification of the Spikenard of the Scriptures. The identification was completed a short time afterwards.

A specimen of the plant itself was procured from the hills of Shalma and Keder Kanla, at the foot of which the Ganges flows, by the eminent botanist, Dr. Royle, we believe, and on being cultivated in the Botanic Gardens of Seharunpore, showed a resemblance to the bushy tail of the Ermine so extraordinary, and so exact, as to settle the question without further ado, while justifying, as it explained, the popular designation by which the Nard survived in the vulgar tongue of the Arabs.

The Nard itself is a most extraordinary flowering plant. It sends out from the ground in the first instance—during the warm season of the year—a thick, fleshy stem, short and stumpy. From this again shoot upwards two or three spikes, at the extremity of which are produced the curious, ear-shaped blossoms characteristic of the plant. The stem has generally four or six very large and hairy leaves, lanceolate and extremely rough to the touch. These leaves open from the thick and shaggy root, and appear, as is always the case in such plants, before the flower spikes are seen. In the colder seasons of the year—for the Spikenard only grows in the more temperate regions of the Himalaya—the flowers, leaves, and spikes all disappear. The foot-stalk only remains. This is very tough and composed of woody fibre, and owing to the dry cold of the Eastern winter, does not decompose. It remains, forming a kind of protection to the tender inner

stem, but splits in a peculiar and irregular fashion, until it assumes exactly the appearance of the rough, hairy and shaggy tail of the fur-bearing Ermine. It is the thick root or stem that, dried, yields the Nard of commerce, which is still carried East and West by the trading caravans, as in the days of Solomon, and from it Eastern peoples still prepare the unguent so highly esteemed among the Jews of old.

XXIV.

THE MALLOW.

ONLY once throughout the whole of the Sacred Writings is there a reference to the favourite wild-flower known as the Mallow, and of which one variety, the so-called English marsh-mallow, is among the most charming of those native, free-growing plants that grace the more humid and sheltered parts of our country. Its Hebrew designation is "Maluach," resembling somewhat the Latin Malva, and French Mauve, no less than the familiar name by which the pretty blossom has become known to us. We are strongly of opinion that the several designations mentioned are all derived from the Hebrew original. And, as if to accentuate the fact of the assumed Jewish descent of both plant and

name, the flower is vulgarly termed the Jews' Mallow. Even the French call it the Malve des Juifs, of which the older designation, Gui-mauve, is only another form; and so Avicenna refers to it as Olus Judaicum. Altogether there seems a pretty strong concensus of opinion as to the "Jewishness"—if one may coin such a word—of this favourite wild-flower. The single reference to the Mallow in the Old Testament Scriptures is contained in the Book of Job (xxx. 4), where Job complains of the contumely to which he is subjected at the hands of a very low and debased people, whose abject and wretched condition is summed up in the verse indicated, "who cut up Mallows by the bushes and Juniper by the roots for meat." The writer seemingly refers to the tops of the former and the roots of the latter plant—which, by the way, is not the Juniper but the Broom—as furnishing the edible portions which these degraded people consumed.

Arguing from the derivation of the word—which comes from the root "malah," signifying salt—it has been contended by a good many, one may say by the majority of critics, that the Maluach was a salty-tasting plant, or one that grew near the sea shore, or in and about salt marshes. And, accordingly, it has been identified with the Sea-purslane, known among botanists as the Atriplex Halimus. This grows abundantly near the shores of the Mediterranean, in the salt marshes of the Holy Land, and

thrives on and about the shores of the Dead Sea. So Canon Tristram, the first authority on the Flora of Palestine, asserts. He found actually thickets of this plant, the Sea-purslane, to the west of the Sea of the Plain, and it was so abundant there, that it supplied him and his fellow-travellers with fuel for some time. It attains a height of ten feet, sometimes forming a thick mass of twigs, and has no thorns. It produces a tiny blue or purple flower, close to the stem, and small, thick, sour-tasting leaves, which Canon Tristram says "could be eaten," but "it would be very miserable food." We venture to believe that it could not be eaten with safety for any length of time, and that it is positively nauseous when sufficient is taken to appease hunger. The traveller Bochart also thinks the Maluach is the Sea-purslane, known among the Greeks as Halimus, and so translated in the Septuagint. But, there are a good many other plants like the Salsolas and Salicornias, which, being soft, succulent, and more or less saline, might be found suitable, if we insist upon limiting the identity in accordance with the derivation. This, however, is no safe guide in such a case, for it is invariably usage and not etymology that determines the signification of a word; and, therefore, the fact that Maluach is or may be derived from "malach," is alone worth little in the present instance.

There is absolutely and really no valid reason whatever for rejecting the generally accepted render-

ing Mallow as the proper equivalent of the Hebrew word used in the Book of Job. Tradition and etymology concur; for the Arabs to this day call the podded mallow, which they largely use as a vegetable in the preparations of their dishes, "Muookhia," or as it would be written in Hebrew characters, "maluch-ia." This is a fact: one of those stubborn facts that no argument can withstand. Celsus too supports the identification, which in every respect is satisfactory. We know from Forskal that the Mallow was carefully cultivated in the kitchen gardens of the Egyptians, and was boiled with meat, much after the fashion of spinach in Western Europe. Rauwulf, travelling in Syria, found it generally cultivated in the country round about Aleppo, where he says the Jews used it as a favourite pot-herb. And to show that the Mallow leaves were used by the very poor in the absence of other food, we may point out that Bidulph, who went from Aleppo to Jerusalem, writes (about 1600), "While our horses were preparing, we walked into the fields, near the church, and saw many poor people gathering Mallows and three-leaved grass, and we asked them what they did with it. And they answered, that it was all their food, and they did eat it. Then we took pity on them, and gave them bread, which they received very joyfully and blessed God that there was bread in the world, for they had not seen bread for many months." Nothing could agree better with the reference of Job

to the Mallow as the food of a poor and despicable people, a plant which even the common folk only resort to in extremity.

As almost everybody knows, the Mallows form a tolerably numerous family, having a certain family likeness, which in East or West is never lost. As a rule, they grow in shady and out-of-the-way corners, where they thrive apace. In Palestine they luxuriate in the sandy, salty waste, appearing immediately after the heavy winter rains, and flowering in Spring ere the heat and drought arrive to convert the Judean flower-covered pastures into parched and arid stretches. The plant is very small, rarely exceeding a foot in height and generally about nine inches high. The leaves are of a dense, dark green. The flowers are of a well-marked purple, or purple red, five-petalled and irregular. Between each petal there rises from the seed-capsule a tiny green leaf, which contrasts well with the bright hue of the blossom. Pistils and stamens are yellow and yellowish white. Several species are cultivated in the gardens of Palestine and Syria and Egypt, but for the sake of the leaves only. And none surpass in gracefulness of growth or vividness of colouring the common, wild Mallow, which is no doubt that referred to by Job in his complaint. As to the objections which may be taken to our identification on the score of the etymology of the word, we may point out that as the Mallow grows by preference

in the salt-marshes and salt-impregnated lands of Palestine, it is quite likely to have acquired its name, which literally means "salt-plant," from its favourite habitat.

XXV.

THE FLOWERING BROOM.

AMONG the more conspicuous blossoming plants which abound in the Judean Wilderness, one of the most striking is the Broom—the Flowering-broom of the Desert; and although the name of this shrub will nowhere be found in the Authorised Translation of the Sacred Writings, it is one of the most notable of our Bible Flowers. Its designation in the Old Testament is Rethem, which in the Anglican Version of the Scriptures is rendered, incorrectly enough, "Juniper." The Broom-plant is referred to in three important passages of the Bible. The first of these connects it with the memorable story of Elijah the Tishbite. When, after the slaughter of the four hundred priests of Baal, Jezebel threatened the Prophet with death, he fled into the wilderness. There (1 Kings xix. 4, 5) "he came and sat down under a broom shrub, and he requested for himself that he

might die." Job, in his affliction, speaks of the "children of base men" who dwelt in caves of the earth, who "brayed among the bushes," who for want and famine were solitary, and fled into the wilderness, where "they eat up mallows by the bushes, and the roots of the broom for meat" (Job xxx. 4). And in Psalm cxx., the writer alludes, along with "sharp arrows of the mighty," to "coals of the broom." The rendering Juniper of the Authorised Version makes the allusion here incomprehensible and obscure, and quite unnecessarily so.

Though critics have indulged in the usual squabbling over the Broom, there is—nowadays at all events—no doubt whatever as to the identity of the Rethem of the Bible. The plant-name appears to have been common to the Semitic group of languages; and it survives, to this day, in the Arabic "ratam," which, from Syria to Morocco, is the vulgar designation of the Broom-plant. This alone would go a great way to settle the question of identity. The Greeks again knew it as "rathmen," coming to them clearly from the East. Ancient authors termed it Genista rætam, while modern botanists call it Retama rætam—in every case, it will be observed, retaining the ancient root-form of the word which was derived from the old Hebrew verb "Ratham," signifying "to bind," or "tie together."

The Flowering-broom of the Holy Land is a leguminous or pea-flowered plant, and a member of the well-known Genista family, found throughout Europe generally, and common enough in the wilder portions of the United Kingdom, on heath and moor and mountain side, like heather and gorse. It is strictly a desert-shrub in Oriental lands, growing in the sterile sands of the Judean Wilderness, in the rocky gorges of the Jordan Valley, spreading through the Sinai Peninsula into Arabia Petræa, and extending into the Great Sahara and the barren wastes of Northern Africa. The Broom is never found in the higher cultivated ground of Palestine. It attains a height of about six feet—rarely more, and produces its flowers before the leaves appear. It is the largest, and is considered the "most conspicuous of all the flowering plants" found in the Wilderness. Canon Tristram says that "in February, when it puts forth its sheet of delicate white and purple-pink blossoms and tiny foliage, few shrubs can surpass it." Its growth is peculiar. It sends up a large number of straight, thin, rod-like branches, very pliant and strong—like osiers and withes. When cut and tied in bundles, these were bound together, in former times as now, and were used to support the vines—hence the Hebrew designation "Rethem," from the root, before mentioned, signifying to bind.

The blossom of the Broom is succeeded by a small pod—not unlike that of the field-pea. This, as it

ripens, turns brown, and is found to contain two little rows of peas, small and extremely bitter. And there can be little doubt that these were eaten by the debased creatures spoken of in the thirtieth chapter of the Book of Job, under the extremity of hunger. For there is really no reason to limit the signification of the Hebrew word "Shoresh," to the roots only of the plant, in the passage above quoted. The fact that the Flowering-broom of the Holy Land does not attain a greater height than six feet has been considered by some incompatible with its claim to be considered the Rethem of the Book of Kings, under which Elijah is recorded to have found shade and to have slept. This, too, led the translators of the Authorised Version of the Bible to propose the Juniper as an equivalent of the Hebrew. But the Broom is quite capable of fulfilling the conditions of the Bible narrative, and it has from time immemorial been eulogised as affording grateful shade and welcome shelter for man and beast. Virgil, in his Georgics, speaks of it, "Salices humilesque genestæ, Aut illæ pecori frondem aut pastoribus umbras, sufficiunt."

> "The lowly kind
> Are for the shepherd and the sheep designed;
> Even humble *broom* and osiers have their use,
> And shade for sleep and food for flocks produce."

The Broom was therefore quite capable of giving shade and affording shelter to the Jewish prophet;

and heathen testimony in this instance is conclusive so far. Besides the Flowering-broom—the so-styled Retama rætam of the botanists—there are two or three allied kinds found in Palestine, all of which, it may be presumed, were termed anciently Reth-amim. One variety is the Prickly-broom of the Holy Land. This produces a pale yellow or white blossom, and, when in flower, is an extremely pretty plant. It is known scientifically as the Calycotome spinosa. In most respects it resembles its flowering relative, but is not quite so tall. The Broom, it should be noted, makes the best charcoal known. It burns with the most intense heat. The Arabs say "it retains its heat for twelve months;" and they relate how two travellers, having cooked their meals with the aid of some "broom charcoal," returned to the place where they left the embers, after an absence of a year, and poking their feet into the heap, found it still warm. Certain it is, that for heating and cooking purposes, the charcoal of the Broom is unsurpassed in the East, and fetches, in the Cairo market, a much higher price than any other kind. This fact explains why the Psalmist speaks of "gahalé Rethanim," or "coals of the broom-plant," when he wishes to denote the fiercest burning kind that was known to the ancient Hebrews.

The Broom family includes a very numerous membership; and comprises several extremely beautiful

plants familiar to Englishmen generally. One species that known as Genista tinctoria, was famous as a dye-plant, and was largely used for this purpose in the East.

XXVI.

THE SOAP-WORT.

TWICE in the Authorised Translation of the Scriptures the reader will find a reference to Soap—Soap distinctly mentioned as a cleansing and detergent material, well known to the ancient Jews, and evidently in common use among them. The Prophet Jeremiah, in an oft-quoted passage, couples it with Nitre—the Hebrew "Neter," and the "Natron" of the ancient Egyptians, in great request for embalming purposes: "For though thou wash thee with nitre and take thee much soap, yet is thine iniquity marked before me" (ii. 22). So again we find it named as a purifying agent along with the "refiner's fire" in Malachi iii. 2, "But who may abide the day of his coming? And who shall stand when he appeareth? For he is like a refiner's fire, and like fuller's soap." The English word, Soap, in these two passages—often printed in its antiquated

form "sope"—is taken as an equivalent of the Hebrew "borith," coming from the well-known root "bar," to cleanse, and having in its very origin, in all probability, a reference to the use of some purifying or cleansing agent. In the Book of Job (ix. 30) the word "Bor" also occurs as a masculine form, but denoting also Soap, though that is not apparent in the Anglican rendering, "If I wash myself with snow water and make my hands never so clean, yet shalt thou plunge me in the ditch, and my very garments shall abhor me." The Hebrew original distinctly has, "and make clean mine hands with soap."

Without entering at any length into the vexed controversy as to whether soap was or was not known to the ancient Jews, we would content ourselves with pointing out that the use of this cleansing material among the Arabs—prepared from oil and potash—is so ancient as to go back to the remotest days. At the same time, it is only proper to say, that we have no warrant for assuming that the Hebrews of old *were* acquainted with the compound we are in the habit of employing nowadays. The Soap of the Bible would appear really to have been used as a ley; much as wood ashes, burnt in such a way as to leave a soda-residuum and then mixed with water, are, in our days, in many parts of England and the Continent. Sea-weed yields, as is well known, a remarkably powerful ley, invaluable for washing and

cleansing purposes, and infinitely preferable to ordinary soap, with its deteriorating qualities. It has been asserted—and by many fair and impartial critics—that it does not distinctly appear whether the substance known and referred to by the designation Borith, was obtained from the vegetable or the mineral kingdom. But the practice of Oriental peoples should satisfy us on this point. The passage, before quoted, from the Book of Job, together with the immemorial custom of the East, may be taken as conclusively settling the doubt; and certainly all authorities on the Botany of the Bible are agreed in regarding the Borith of Scripture as a preparation of wood ashes for cleansing purposes, obtained from certain plants common to Palestine in ancient and modern times, and to this day cut down by the Arabs and fellaheen for the same purpose as is indicated in the scriptural text. And the plant, as is generally the case in Hebrew, seems also to have been known by the same name as its product.

This Bor is, we take it, the Soap-Wort, sometimes called the Salt-Wort, the "Soude" of the French, the "Soda-Pflanze" of the Germans, the "Soda" of the Italians, the "Solianka" of the Russians, and the "Al Kali," actually, of the modern Arabs; in every instance, bearing a designation having reference to the product of its ashes when burnt, and corresponding therefore to the Hebrew.

The botanical designation of the plant is Salsola kali, the Soda-yielding Salsola, and it is vulgarly known, too, as the Prickly Salt-wort. There are in Palestine two notable varieties of this soap-plant. One, a "small, bushy plant," having a "number of slender branches, and on the top the flower plumes; below these are narrow, pointed leaves, of which the upper surface is ash coloured and the under surface a clear white." This variety grows plentifully in the districts about the Jordan and in the Land of Gilead. It is cut down by the Arabs, who prepare from it artificial salt, and a kind of valuable soft-soap by boiling the ashes with olive oil.

The other species of Salsola is a much more curious plant. It is the Kali of the Arabs, and abounds near the Dead Sea. It is a jointed plant, with a hard, woody stem. It prefers sandy soil, and puts out several prostrate shoots, from which again emanate a number of spreading branches. It is prickly and hairy. Its leaves are awl-shaped and very pointed, and grow in threes and fours on the stem and branches. They are thick and "of a fleshy substance." In the very centre or axis of the leaves the blossoms appear during the month of July. They are of a pale pink generally, sometimes of a deeper, ruddy hue. They are very minute, but contrast prettily with the green of the fleshy stem and branches.

The Talmud knows the Bor of the Scriptures

both as a compound and as a plant; and it may be noted that the Talmudists assert that the flower was an indigenous Salt-wort, and was in their days common in Palestine, and in general use among the people for soap-making purposes. Together with a number of allied plants, the peasants in the Holy Land burn it for exportation still; and the soap used by the unlaving Greeks and Egyptians is nearly all of it imported from Nablus—the ancient Shechem of the Bible—in Palestine.

Judging from the statements of the Talmud, and the antiquity of the soap compound now in use among the Arabs, we are disposed to believe that the ancient Hebrews were as well acquainted with the cleansing compound as we of the Nineteenth Century.

XXVII.

THE NETTLE.

THE Nettle is only one of a large number of similar plants mentioned in the Bible with which the Hebrews were, of old, familiar. They are, nearly all, still to be found in Palestine; for, rich as the land is in flowers and flowering-shrubs, it is a veritable paradise of weeds. The number of these noxious growths encountered by the traveller in Syria, tells

eloquently of the decay of husbandry and the neglect of the fellaheen. Under the stimulus of an Eastern sun, too, these rank intruders of the field not only thrive apace, but attain a size and luxuriance unknown to the more temperate regions of the West. And they develop a strength of spine and power of stinging exciting our warmest admiration, though not calculated to provoke any lively desire for a closer acquaintance.

The variety of these stinging-plants are simply legion; and they are all alike distinguished for objectionable qualities. If, however, there be one that is more than any other objectionable, one whose sting is more painful, and whose poisonous secretion is more acrid and burning than that of its fellows, it is the Stinging Nettle, the Urtica pilulifera of scientific botanists, known vulgarly, wherever Arab influence has penetrated, as "Daoun Sheitan" the Devil's Apron. Other prickly plants of the wilderness bear, as a rule, some outward token of their noxious properties; their stings are visible, their spines are patent, and they, so to speak, warn off trespassers. Many, like the Yellow Bear's-breach, the Desert Cactus, and the Golden Orobanche, commend themselves to our sight by their handsome blossoms or striking flower-spikes. The Stinging-Nettle can boast of absolutely nothing whatever in mitigation of its unpleasing qualities. It is sly and ungrateful. It attracts the unsuspecting traveller by an apparent harmlessness,

and, like an ingrate, turns its venom upon the hand that touches it. Its common designation is eminently appropriate, as all who have experienced its smart will admit; and if Satan ever sported such an "Apron"—as the vulgar belief pretends—he certainly possessed a garment which even the lightest of light-fingered gentry would hesitate to handle.

The Stinging-Nettle is the "Kimmosh" of the Hebrew, the "nettle" of the ordinary version of the Sacred Writings. Isaiah (xxxiv. 13), announcing the judgment of Idumea, uses the word as the designation of a well-known and common weed, springing up in desolate places—"Thorns shall come up in her palaces, nettles and brambles in the fortresses thereof." A similar reference is found in the utterances of Hosea (ix. 6), where the Prophet alludes to the Jews who relied for safety on Egypt—"Egypt shall gather them, Memphis shall bury them; the pleasant places for their silver nettles shall possess them, and thorns shall be in their tabernacle." A variant form of the Hebrew word—the plural "Kimshonim"—occurs in the twenty-fourth chapter of the Book of Proverbs, verses 30, 31—"I went by the field of the slothful and by the vineyard of the man void of understanding; and lo, it was all grown over with nettles, and thorns covered the face thereof." We have not here given the passage as it stands in the authorised translation of the Scriptures. We

have transposed the words "thorns" and "nettles," so as to make them correspond with the original text; for, with their usual inconsistency in floral matters, the translators of the Anglican Version of the Bible have rendered "Kimmosh" correctly enough in Isaiah and Amos, but in Proverbs they have, for some incomprehensible reason, translated it "thorns," and transferred its real equivalent "Nettles" to another word altogether, that is to the word "harulim." There are two other passages of Scripture in which this term "harul" has also been incorrectly rendered "Nettle"; in Job (xxx. 7), "Among the bushes they brayed, under the nettles they were gathered together," and in Zephaniah (ii. 9), "Moab shall be as Sodom, and the children of Ammon as Gomorrah, even the breeding of nettles and salt pits, and a perpetual desolation." There is no justification here for rendering the original Hebrew by the English equivalent Nettle. It is altogether unsuitable in the passage before quoted from the Book of Job, though not for the reasons generally relied upon by critics and commentators. The Stinging-nettles of Palestine would be quite capable of giving shelter to any one who was imprudent enough to seek it there; but the native who ventured to creep under it would come out much quicker than he went in, a sadder and temporarily —after a closer acquaintance with the plant—not a better man.

The Kimmosh would, of course, not be a Bible Flower if critics had not quarrelled and commentators disagreed as to the identity of the plant designated by this Hebrew word. But all authorities, ancient and modern, from the mediæval Midrash, known as Tanchuma, to Canon Tristram, are as certain as they can be in such matters, that the Urtica pilulifera, or Stinging-nettle, is the plant referred to. It is the only one that fulfils the conditions of the Scripture narrative, a rapid-growing weed—evidently, from the verse in Proverbs—found in uncultivated or carelessly-tended fields, in desolate ruins, and in deserted gardens.

The Stinging-nettle of the Holy Land is somewhat unlike the Common Nettle of our own land. It is, of course, the selfsame plant, with the selfsame properties, but on a bigger scale. And this makes all the difference. It is between four and six times the size of the indigenous English weed, growing to a height of six and seven feet, and completely choking the corn whenever it gets a footing in the corn-patch. Its leaves and stinging apparatus are exactly like those of the Common Nettle, only, of course, of Brobdignagian proportions. Altogether, the Palestinian Nettle is a fair illustration of the completeness with which a weed can elaborate a defensive apparatus on a large scale. It is covered all over with hairs, some of which, on examination, will be found hollow and perforated. These are the stings, each

of which is mounted on a little pedestal. This is, in reality, a gland and a poison bag, spongy and cellular within. When one touches the sting it is, of course, pressed downwards at the base upon the spongy pedestal. The poison bag thereupon forces the irritant fluid it contains up into the hollow tube, and this again discharges it at the point into the wound made by the sting itself.

The Nettle of the Bible is, therefore, infinitely more offensive than the common English variety, and its sting much more painful and troublesome. Its flowers in spring are rather pretty, when examined, but are too pale to show up amid the green that surrounds them. The plant grows everywhere in the Holy Land, and appears to be specially plentiful about Beisan—the ancient Beth-Shean—and Tel Hum, the site of Capernaum. Wherever found, it is a most annoying and awkward obstacle, even when a "six-footer" stands alone in the way. But, when the traveller comes across it, with presumably several members of its family, in every stage and age of growth, from six inches upwards, surrounding it, it is something more than objectionable. The poet's advice is impracticable in the case of the Jewish Nettle.

"Tender-hearted, touch a Nettle,
And it stings you for your pains;
Grasp it like a man of mettle,
And it soft as silk remains."

The author of the lines was clearly unacquainted with the Syrian member of the Urtica family. Standing some six feet high, its stems extended, a veritable mass of poisonous fangs, the more noxious by reason of their smallness, the Eastern weed is not so easily handled, and there is very little of the soft silkiness about it when one grasps it like a man. The Stinging-nettle of the Holy Land will stand no intimacy, and resents familiarity with every hair of its stinging organisation. The only thing the traveller, who finds it in the way, can judiciously do, is to treat it as one would any other undesirable acquaintance,—cut it.

XXVIII.

THE WHITE POPPY.

THE Poppy is not generally supposed to be a Bible plant, nor would many be disposed to identify any single word in the Scriptures with the well-known Papaver of the Orient. In Isaiah (xxviii. 25) the Prophet illustrates his argument by a comparison in which reference is made to a plant designated in Hebrew "Ketzach." "When he (the ploughman) hath made plain the face thereof, doth he not cast abroad the 'Ketzach'?" and further on,

"For the 'Ketzach' is not threshed with a threshing instrument, neither is a cart wheel turned about on the Cummin. But the 'Ketzach' is beaten out with a rod, and the Cummin with a staff." This word Ketzach is rendered in the Anglican Version of the Scriptures "fitches," or in its more modern and familiar form "vetches." But the translators of King James's days have, in Ezekiel (iv. 9), "Take thou unto thee wheat and barley and beans and lentils, and millet and fitches," rendered the Hebrew term "Kesamin" by the same English equivalent. It is almost self-evident that both translations cannot be correct; and those who have noted the principle upon which most other Bible Flowers are identified, will not be much surprised to learn that both renderings are bad; neither represents the original. Indeed, with their usual inconsistency, the translators have rendered "Kusemeth" in other passages of the Old Testament (Exod. ix. 32 and Isa. xxviii. 25) by its proper equivalent "rye." Why Ketzach should have been identified with fitches it is difficult to say, except, perhaps, that the authors of the Anglican Version chose to follow—as involving least trouble to themselves—the translation made off-hand by Martin Luther. Whatever the plant known to the Jews by this designation may have been, all authorities, without exception, are agreed that it could not have been the fitch of the English Bible.

In attempting to identify the Ketzach we have

comparatively little to guide us, save the meagre fact that "the grain was one easily separated from the capsule, and, therefore, beaten out with a stick." To this we would venture to add that the grain must have been very small, for the surface of the soil had evidently to be made very fine and smooth—"when he hath made plain the face thereof"—before the seed could be put into the ground. That the seed itself, in addition, was black, is tolerably certain from the Greek equivalent Melanthion of the Septuagint. Canon Tristram—the foremost authority upon the Flora of the Scriptures—identifies the Ketzach with the Nigella sativa, of which the little black seeds are well known to commerce as Nigella, and are principally used in our free-trading days for the congenial purpose of adulterating pepper. This flowering plant is a member of the Ranunculus family. It grows wild in Southern Europe. But the Egyptian peasants and Syrian farmers cultivate it carefully for the sake of the black seeds, which are much esteemed as a condiment. The plant resembles the well-known Ranunculus of our gardens. The leaves are identical with those of our familiar varieties, and its flowers are either blue or yellow. The seed is contained not in a pod, but in a vessel like a cup, "divided into partitions or cells," with a fringe of horns.

The seeds of the Nigella are hot and pungent to the taste, and are always sprinkled over the flat

griddle cakes—which form the bread of the fellaheen —before they are baked, like caraway seeds in some parts of England, and Poppy-seed on the Continent generally. Canon Tristram sees in the passage of Scripture before quoted remarkable evidence of the minute accuracy of Isaiah. Comparing the seeds of the Nigella and the Cummin—coupled by the prophet —he says, "Neither seed could bear the heavy cylinder of the corn-threshing machine or the feet of oxen; but while the Cummin can be easily separated from its slight case by a slender rod such as we see employed, the harder pod of the Nigella requires to be beaten with a stouter staff in order to dislodge the seed." Such literal exactness appears, however, to us rather too much—even assuming, as Canon Tristram does, that the Ketzach *is* the Nigella. The words "staff" and "rod" are rather synonyms in the passage referred to, and thus in accord with Hebrew usage in the parallel members of a poetic passage, and are not employed by reason of their absolute fitness in this particular instance.

That the Nigella was known to the ancient Hebrews there is no evidence to show; and without going into elaborate or learned discussion, we may say that the Ketzach was in our opinion—as in that of the erudite Meibomus and a number of able critics—the famous White Poppy, the Poppy of the East, the true Papaver or Opium Poppy, which must have been as well known among the Jews of

old, and indeed all Easterns, as it is among the Indians and Chinese of to-day. So well known was the flower and its stupefying product two thousand years ago among the Hebrews, that the older of the two Talmudim, the Jerushalmi, in section Abodah Zara, warns people against the dangerous consequences attendant upon opium eating. The White Poppy of the East resembles in form, shape, mode of growth, and general characteristics the Scarlet Poppy of our corn fields and chalk patches. Only it is of a pure milk white, and more fragile-looking, by reason of its transparency. The cultivated varieties soon run double, and produce a much more valuable product. The Opium is only the dried, milky exudation obtained during growth. If allowed to grow to maturity it rapidly runs to seed, producing the elegant-shaped capsules familiar in the druggists' stores. The seeds are intensely black and very small, and have, from time immemorial, been used for strewing upon bread and wheat cakes such as Easterns use. This seed is frequently referred to in the Talmud by the designation *pargin*, and is, in our opinion, the Ketzach of the Old Testament. It is so small as to necessitate a very fine tilth if a large proportion of seed is not to be lost; and it agrees, therefore, in this respect with the requirements of the passage in Isaiah. It is also easily beaten out with a stick not too strong or heavy, and is, moreover, a flowering plant so ancient and so well known in the East, that it could

not possibly have been unknown to the Jews, who seem to have been acquainted with nearly every flowering plant and blossoming shrub found in the antique world.

The identification here proposed admits, of course, of no proof positive. The Talmudic Kitzchah may be urged against the Poppy. But it appears to us that the latter is much more probable than the alternative Nigella suggested by other and, no doubt, abler authorities.

XXIX.

A BATCH OF DOUBTFUL PLANTS.

SO numerous are the Bible-Flowers calling for individual treatment that our list is by no means exhausted. We have treated only such plants and flowering shrubs as were certainly known to the ancient Hebrews, and as certainly cultivated by them where they were adapted for garden treatment. To bring our series of papers within reasonable limits we have confined our list to such as are explicitly mentioned by name in the Sacred Writings, or referred to as indigenous or native plants. Hence we have excluded all such as are only inferentially indicated, plants of which the scent, or gum, or other

aromatic portions, were imported—in Bible phrase—from "a far country," and which were presumably unknown to the Jews or unsuited for cultivation in the climate of Palestine. Such can make no claim to come in the category of Bible Flowers. Among these, however, are a large number of interesting plants and plant-products, doubtful of identification in some instances, fairly well-established in others, and which may be accorded a few lines ere concluding.

One of the principal of these is the plant producing the Myrrh of the Bible. The substance is frequently referred to in the sacred narratives; in Exodus (xxx. 23) as a hard substance, pounded for the Holy incense; in Proverbs (vii. 17) kindled for fumigating purposes; in Psalms (xlv. 9) used for perfuming garments; in Esther (ii. 12) mentioned as an unguent; and in the Song of Songs, a liquid form, "running myrrh." In spite of the positive assertions of some writers, and the rendering Stacte, it is really very doubtful whence this Myrrh was obtained. It is said to have been the produce of a species of Acacia, which is vague enough, seeing that the Acacia has a large number of varieties, and includes the Common Goat-thorn of Egypt and the Scented Acacia of Palestine, which furnished the Shittim wood so much esteemed by the ancient Jews. To us it appears, from the Bible references, scarcely possible that one single

species of Myrrh can have been meant in the Scriptures. The designation "mor" seems rather to be general, and to have been generally applied to a variety of preparations of the same kind or class.

Another doubtful plant is that of which the product "Kiddah" is referred to in Exodus (xxix. 24) and Ezekiel (xxvi. 19). The word comes from a root signifying to "peel off"; hence it has been identified with the Cassia, and so translated in the ordinary version of the Holy Scriptures. The Targum, the Syriac, and the Vulgate all bear out this identification as against Amber and Stacte, both of which have been suggested as an equivalent, and both of which could have formed ingredients of the Holy incense. But, in defiance of all modern authorities, we hold that the Cassia of the Bible is neither Cassia nor Stacte, but Costus. We are disposed to identify it with the Kosht mentioned in the Talmud — Tractate, Cheritoth. Be that, however, as it may, the plant or shrub or palm-like tree which was known as the "Kiddah"— Dioscorides speaks of the "kitto" curiously enough —is one that it is not possible to identify.

About the "Ketziah," another of these rarer Bible plants, there is, in our opinion, no manner of doubt whatever. It is the well-known Cassia-shrub, from which we obtain the Cassia of commerce, and which furnishes us with the greater part of the cinnamon

we use in our days. As will be noticed, it retains its ancient name to this day in every language, Arabic included; for Cassia is only a variant of the old Hebrew—probably of Indian derivation—Ketziah. Dr. Royle, the eminent botanist, has indeed suggested that the Cassia of the Bible is really the Khoosht or Costus of the modern Hindoos, and he notes the phonic resemblance of the names. One fact, unfortunately, stands in the way of this theory. The Khoosht of the Indians or "Costus" appears to be identical with the Kosht of the Talmud; and as the Talmud explicitly refers to this as a thing altogether distinct from the Cassia, or Pseudo-Cinnamon, Dr. Royle's contention is nowhere.

There is no good reason whatever for rejecting the accepted identification of the latter Hebrew word with the Cassia Laurel of ancient and modern botanists. It need, perhaps, scarcely be pointed out that it is the inner bark of this evergreen shrub which furnishes the Cassia or Pseudo-Cinnamon of commerce. The genuine Cinnamon—the Laurus cinnamomum—was also well known to the ancient Hebrews, and is very often mentioned in Scripture. It is referred to both as "Kinnamon," simply Cinnamon—in Proverbs (vii. 17), and Song of Solomon iv. 14—and "Kinmon Besem," Sweet-scented Cinnamon, in Exodus xxx. 23. The Talmud knows it by its Biblical designation, and the Aramæans

called it Kunema. It was introduced to Palestine by Phenician traders who brought it from India, and thence it passed into Europe, taking with it everywhere the original designation, which it bears to this very day.

Apart from the foreign aromatic plants so frequently mentioned in Holy Writ, there are a number of flowering plants and shrubs clearly mentioned by name in the original text, but which nevertheless it is difficult to identify. The most noteworthy perhaps of these unrecognisable Bible Flowers is the "Sneh" of Exodus (iii. 2 *seq*). This was the particular bush which Moses, when in the Midian desert, supposed to be on fire, and from the midst of which, in the allegorical language of the Hebrew, the Almighty General spoke to the Jewish lawgiver. Sneh is not a term, it is specific, and designates some well-known shrub peculiar to the Wilderness. It is sometimes identified as the "thorn-bush" or "thorn-briar"; but these are mere names, and are too vague to mean anything. The attempt to identify the Sneh with the Sena of the Arabs—the leaves of which are sufficiently well known as the Senna of the druggist—appears plausible; but it rests solely upon the phonic resemblance of the Arabic and Hebrew words. It may be the plant meant, but that is all we can at present say about it. The identification has yet to be proved. Equally doubtful is the prickly plant, or weed, perhaps, denoted by the Hebrew terms

"Choach" and "Chochim," translated "thorns" in the Song of Solomon, ii. 2, and in the Book of Job, xxxi. 40. It is supposed to be identical with some one or other of the many varieties of briars, or dog-roses, found in Palestine. According to Hosea (ix. 6) it should be a kind of brushwood, prickly and tangled; but it is really far too doubtful a matter to speak positively on. And, as in the case of many other obscure plants mentioned in the Sacred Writings, it is wise, in the present state of our knowledge, to abstain from attempted identifications, which can only be based upon imperfect grounds, and which would add to, instead of clearing up, the confusion that at present exists about them.

XXX.

FLOWER GARDENS AND FLORICULTURE.

ANYTHING like an extended essay on floriculture among the ancient Hebrews would be out of place in a work like the present. But a few words on the gardens and gardening of the Jews will fittingly conclude our series of papers. There are, in the Bible, no direct references to the culture of flowers Indeed, it is curious to note that in the

usual generic sense of the word there is no Hebrew equivalent for the term "flowers." We should be disposed to say that mere beauty of form in these "gems of the field" appealed less to the Hebrew than fragrance of odour. Not that he was insensible to the beauty of the blossom, its rich colouring and graceful growth; but he was always subjective rather than objective, and thought, characteristically enough, more of the perfume of a plant than of the beauty of its flowers. And aromatic plants he, especially, seems to have delighted in, as the reader would infer from the number of such referred to in the Bible. Hence, the nearest approach to our general term "flower" is to be found in the Hebrew word "bosem," really signifying "fragrant or scented plants," as used in the Song of Solomon, "I have gathered my myrrh with my fragrant balsam-plant."

The translation of the Authorised Version in this passage is altogether out: for "spice" is ridiculous in such a connection, since spices are not gathered from growing plants in a flower garden. That the Jews were good practical florists is also, notwithstanding the paucity of references in the Bible, evident enough. That they were acquainted with the process of grafting we know. And, therefore, it would be safe to affirm that the cognate process of cross-fertilisation could not have been altogether unknown to them. One thing, however, incontestably

shows that this process must have been practised by them. In the Mishnic period—the period between say 150 B.C. and 50 A.D.—we find the Jews cultivated numbers of flowers, which could only have been obtained after acclimatisation in Palestine by continuous cross-fertilisation carried on for a considerable length of time.

That cultivated gardens were the fashion, the Hebrew word "Gan" and the foreign term "Pardes" sufficiently indicate. Alone, they would perhaps not signify much, since both mean simply an enclosure. But the connection in which they are used in the Song of Solomon (iv. 13), in Ecclesiastes (ii. 6), and in Nehemiah, show to what an extent gardening as a luxury and a pleasure was carried on. Ben Sira, and the Book of Susanna, as well as the Talmud, have references to gardens and floral retreats made for enjoyment and shelter. The gardens of ancient Palestine were indeed famed throughout the East. We shall not inflict upon our readers Josephus' description of King Solomon's gorgeous gardens in the Plains of Urtas, about which Eastern tradition has so much to say. But legend always adumbrates a fact in such cases, and the stories of Solomon's Pardes near his capital embody, perhaps, but some enthusiastic visitor's exaggerated account, improved upon by the masses among whom it gained currency, and endowed, after the fashion of the exuberant Eastern imagination,

with all the growths of a terrestrial Eden. That the Jews grew their flowers and perfume plants in raised beds and regular borders, precisely as our modern landscape gardeners do, is evident from one word found in the Hebrew—the word "'arugah," which actually means a "flower-bed or border." It is used in the Song of Solomon (vii. 2) in a sense sufficiently clear—"My beloved is gone unto his garden among the beds of fragrant flowering-plants." The Authorised Version gives here the unfortunate rendering "beds of spices," as though a "bed of spices" could have a place in an open-air garden, where, as the text adds afterwards, one goes "to gather lilies"!

There is no doubt as to the meaning of "'arugah"; for, in Ezekiel (xvii. 7, 10) the word, with an approach to the real signification, is translated "furrows." The passages referred to conclusively prove that garden borders and beds were planted, as nowadays, with fragrant shrubs and sweet-scented flowers. To know what an ancient Jewish garden was like we need only turn to Armenia. There the word Pardes survives to this very day, and is in common use. It is applied to a garden that surrounds a house, "a delightful place of trees and palms, fruits and flowers, surrounded by a ditch and wall," to ensure that privacy which Easterns, like Englishmen, so greatly cherish.

The gardens of the Hebrews were not, as a rule,

attached to their houses. For the most part they were, as is customary in Palestine to this very day, situated without the city limits, generally at some distance from it. In the capital, no flower-gardens of any kind or description were allowed to be formed. There appears to have been a police regulation of the ancient Hebrews that prohibited all gardens within the walls of Jerusalem, excepting only those which dated from the time of the Jebusites and existed already when the Jews acquired possession of the Holy City. This law is embodied in the Talmud, and was certainly enforced during a fairly long period. The why and wherefore of the ordinance is not readily apparent. Among the reasons assigned for it is this. The odour of the aromatic plants was found so overpowering that, had a large number of gardens been permitted, the smell would have been extremely disagreeable, if not unhealthy. There may have been something in this notion about an "excess of sweet odours" proving the reverse of agreeable—as those engaged in the distillation of fragrant essences can testify. But, another reason is given by some one or other among the Rabbins who allude to the prohibition. The gardens would have attracted, it is urged, worms in considerable numbers, and this would, in some roundabout and not easily comprehensible way, have increased the risk of ceremonial defilement, rendering impure the utensils and

other things of the Temple. It may really have been in order to prevent any other perfume from mingling with the fragrant odour of the incense burnt in the Temple. Possibly, the commonplace consideration that Jerusalem occupied a very small extent of ground within the walls, and had none, therefore, to spare for gardens, was really the motive of this prohibition, which appears to have been in force during the later period of the Jewish Commonwealth.

Printed by Hazell, Watson, & Viney, Limited, London and Aylesbury.